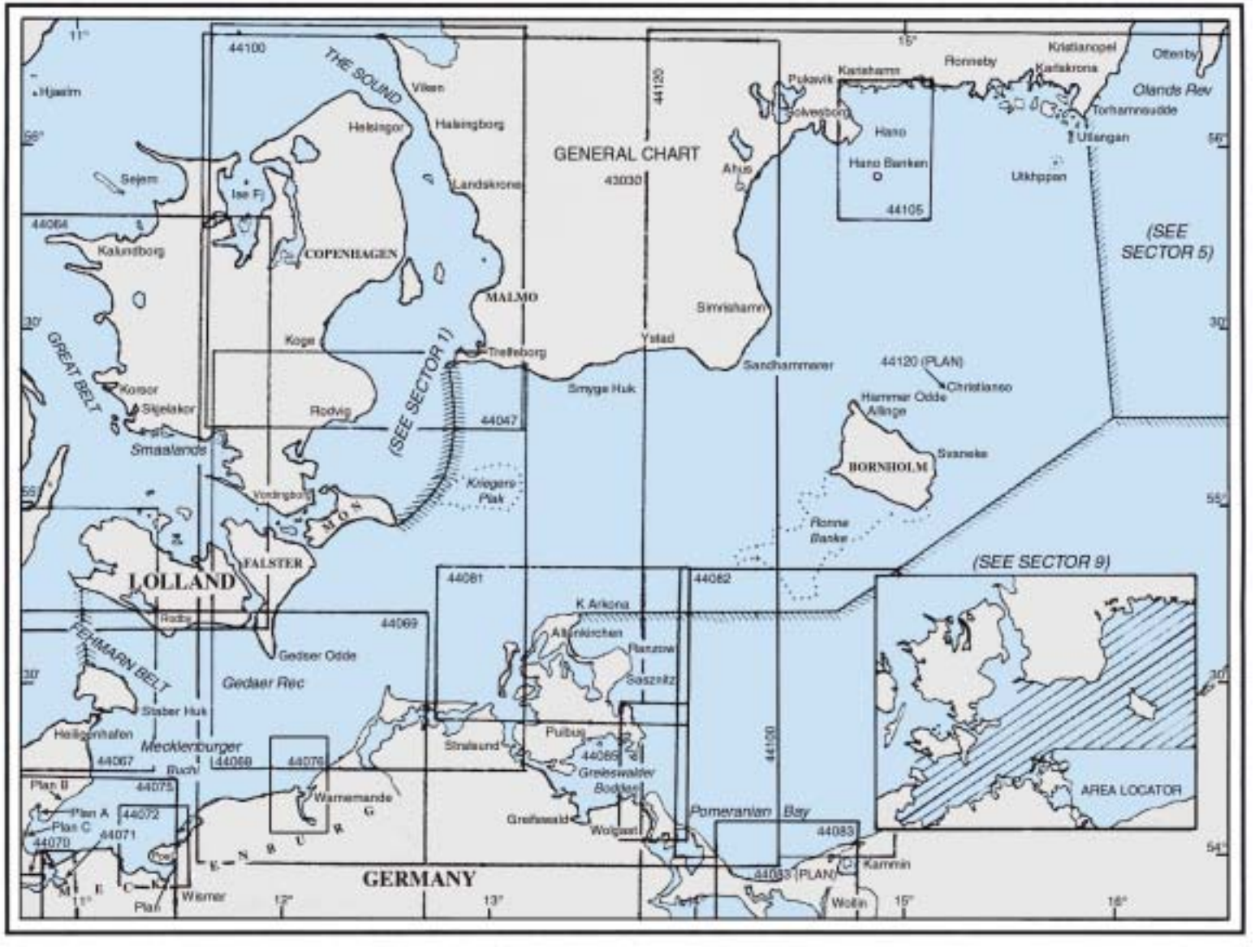
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **4** — CHART INFORMATION

Table of Contents

Table of Contents

SECTOR 4

GERMANY—FEHMARN BELT TO KAP ARKONA AND SWEDEN—SOUTH COAST (INCLUDING BORNHOLM AND CHRISTIANSO)

Plan.—This sector first describes Fehmarn Belt, Mecklenburger Bucht, Lubecker Bucht, and Kadet Rinne. The shores bordering the SW part of the Baltic Sea are then described. These include the section of the German coast between Darsser Ort and Kap Arkona, the section of the Danish coast between Gedser Odde and Mon Light, and the section of the S coast of Sweden between Falsterbo Udde and Torhamnsudde. A description of the off-lying islands of Bornholm and Christianso is also included. The descriptive sequence is from W to E.

General Remarks

4.1 Fehmarn Belt (54˚35'N., 11˚12'E.), the passage leading between Fehmarn and Lolland, provides access to Mecklenburger Bucht from Kieler Bucht and the Store Baelt. It is 16 miles long, 6 miles wide, and has depths up to 27m.

To the E of Fehmarn Belt, the S shores of the Danish islands are fronted by shifting sandbanks, islets, and extensive shoals. Shallow channels lead from this passage to several small fishing harbors lying along the coast.

Gedser Rev, the shorebank, extends up to 9 miles SE from Gedser Odde (54˚34'N., 11˚58'E.) and narrows the main passage.

Mecklenburger Bucht (54˚25'N., 11˚32'E.) indents the German coast between Staberhuk, the SE extremity of Fehmarn, and Darsser Ort, located on the mainland 42 miles ENE. It has general depths of 22 to 24m.

Lubecker Bucht (54˚05'N., 11˚02'E.) extends SW from the SW part of Mecklenburger Buct and Neustadter Bucht is entered at the NW side of its head.

Kadet Rinne (54˚27'N., 12˚15'E.), known to the Danes as Kadet Renden, lies about midway between Gedser Odde and Darsser Ort and is the deepest part of the channel leading SW and W into Mecklenburger Bucht. The main fairway is 1 to 3 miles wide and 15 miles long.

The E coast of Falster and the S coast of Mon form the NW limits of the water area described within this sector. Hjelm Bugt, a large bight, is bordered on its N side by the S coast of Mon.

The Swedish coast between Falsterbo Udde Light (55˚23'N., 12˚49'E.) and the island of Utlangan (56˚01'N., 15˚47'E.) forms the N limit of the water area in the W part of the Baltic Sea described within this sector.

The coast between Falsterbo Udde Light and Sandhammaren, 49 miles E, is generally low, sandy and backed by gently rolling plains. From Sandhammaren, the coast turns NNE and the terrain becomes higher with forested hills appearing in many places. At Listershuvud, a prominent point located 45 miles NNE of Sandhammaren, the coast continues E to Torhamnsudde. This low and partly wooded section of the shore is heavily indented and fronted by numerous islands and islets, which lie up to 3 miles seaward. With few exceptions, all of the dangers lie within 10 miles of the shore.

Bornholm and Christianso, both Danish possessions, lie 20 miles SE and 34 miles E, respectively, of Sandhammaren (55˚23'N., 14˚12'E.).

Winds—Weather.—Winds from the W and SW predominate throughout the year along the S coast of Sweden, but are not considered to be trade winds. In many areas the winds are variable. For example, a fresh breeze may blow on the W side of Bornholm, while a calm prevails on the E side. Winds from the E have occasionally been observed in late winter and spring. Land and sea breezes may also be encountered along the coastal regions of Sweden during the summer.

The weather in the S part of Sweden, under the influence of the Gulf Stream, is remarkably mild considering the latitude. Fog is most frequently encountered in the winter. Mild winds from the SW enter the Baltic Sea from the North Sea following a cold period and usually form dense fog. During periods of severe cold on the land, sea smoke is formed on the coastal waters. Precipitation along the S coast of Sweden is low and the snowfall is usually not heavy.

Ice.—Ice conditions for harbors are found with the respective description of the port. It is only during severe winters that the open waters of the Baltic Sea are frozen over. During the ice season, concentrations of drift ice move through the area toward the passages leading to the Kattegat.

Tides—Currents.—The prevailing current flows from the Baltic Sea toward Mecklenburger Bucht and Fehmarn Belt at a rate of 1 to 2 knots. During severe weather, the current generally sets with the wind in the open sea and attains rates of 3 to 4 knots near the shores.

Tidal action has little effect on the water levels in the W part of the Baltic Sea. In general, the water level rises 1.2 to 1.8m with winds from the N and NE and falls a like amount with winds from the SW and W. Particularly strong and prolonged winds from one direction are usually the main factor in changing the water level. At Hesnaes (54˚49'N., 12˚08'E.), on the Danish coast, winds from the NE may raise the water level by up to 1.5m and winds from the SW may lower it by a like amount. At Klintholm (54˚57'N., 12˚28'E.), farther NE, gales from the NE may raise the water level by 0.6 to 0.9m and those from WSW may lower it by the same amount. Severe storms may cause even higher rises in the water level. During such periods, flooding sometimes occurs over the low-lying land along the German coast.

Pilotage.—Deep sea pilots for Store Baelt. Lille Baelt, The Sound, Kattegat, Kieler Forde, and the W part of the Baltic Sea are available at Gedser and are provided by DANPILOT. Vessels should sent a request for pilotage and an ETA at least 12 hours in advance. The message must include destination, maximum draft, speed, and pilotage requirements. Messages

Return to paragraph: 2.1 2.43

Table of Contents

sent by telex or fax must indicate for the attention of Gedspilot Nykobing F.

Pilots may be contacted by VHF and board in the vicinity of Lighted Buoy DW 74 (54˚36'N., 12˚15'E.).

Regulations.—A voluntary reporting system (SHIPPOS) has been established within the Danish waters of the Baltic Sea and along Route T. It applies to vessels of 20,000 grt and over; all vessels 1,600 grt and over carrying oil, gas, or chemicals; all vessels carrying radio-active materials; and all vessels with drafts of 13m and over. See Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details.

Caution.—Several IMO-adopted Traffic Separation Schemes (TSS) have been established within the waters described in this sector and may best be seen on the chart.

Extensive fishing is carried out from May to November off the N and E coasts of Fehmarn and in the W part of Mecklenburger Bucht. From December through the middle of April, fishing is carried out within Lubecker Bucht.

Several restricted danger areas lie within the waters described in this sector and may best be seen on the chart. Vessels are cautioned not to anchor, trawl, dredge, lay cable, or conduct any similar type of operation in these areas due to the residual danger from mines on the bottom. Vessels anchoring within, or passing through, these mined areas during thunderstorms do so at their own risk. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details of areas formerly published in NEMEDRI.

Numerous wrecks, some dangerous, lie within the waters described within this sector and may best be seen on the chart.

Several submarine exercise areas lie within Mecklenburger Bucht and Lubecker Bucht and may best be seen on the chart.

Numerous large rocks lie on the bottom throughout Mecklenburger Bucht and Lubecker Bucht, especially in the shallower parts.

High speed ferries operate in the waters described within this sector.

Defensive minefields lie in the approaches to Solvesborg, Karlshamn, Guovik, Jarnavik, Ronneby, and Karlskrona. Vessels are cautioned not to anchor or fish in these fields and they should also avoid passing through them during a thunderstorm.

Directions.—Route T is the primary route leading through Store Baelt, Fehmarn Belt, and Mecklenburger Bucht. It is the recommended route for deep-draft vessels. Sections of the route are designated as Deep Water Routes. In the S section of Store Baelt, Route T is designated as a Deep Water Route and lies on the W side of the passage leading through Langelands Baelt (see paragraph 2.1).

Route H, which must be followed by vessels with drafts of 10m and less, lies on the E side of the passage leading through Langelands Baelt.

Route T.—Route T continues SE and E into the N part of Fehmarn Belt from the S end of the Deep Water Route. It extends about 10 miles SE to Lighted Buoy KO5/T62 (54˚36'N., 11˚01'E.) and then about 4.5 miles E to the KO6/T63 LANBY (54˚36'N., 11˚09'E.).

The Kiel-Baltic (Kiel-Ostsee) Route joins Route T at Lighted Buoy KO5/T62.

Route T then continues through Fehmarn Belt and across the N part of Mecklenburger Bucht. It leads SE for 24.5 from the KO6/T63 LANBY to Lighted Buoy KO10/T67-68 (54˚25'N., 11˚47'E.) and then E for 7.5 miles to the W end of the TSS situated in Kadet Rinne.

Route T follows the lanes of the TSS, which may best be seen on the chart, to a position located about 11.5 miles ENE of Gedser Odde Light (54˚34'N., 11˚58'E.). It then continues NE for about 19 miles to a position located about 25 miles WNW of Kap Arkona Light (54˚41'N., 13˚26'E.). This latter section of the route is marked by lighted buoys and is designated as a Deep Water Route. Deep-draft vessels are advised to proceed with great caution when navigating in the vicinity of the TSS due to a number of recent groundings in this area.

Vessels, other than those which must use the Deep Water Route because of their draft, are advised to use the area outside the route. Such vessels should proceed E on the E and S sides of the Deep Water Route and W on the N and W sides.

There are no designated routes situated to the E of the E end of Route T. Vessels bound for The Sound should proceed N in order to enter the TSS situated S of Falsterbo Rev Light (55˚18'N., 12˚40'E.); vessels bound E into the Baltic Sea should proceed NE towards the S coast of Sweden; and vessels bound for German ports should proceed E and join the local designated tracks.

Vessels following the offshore track around the S coast of Sweden should proceed in an E direction for about 35 miles from S of Kullagrund Light (55˚18'N., 13˚20'E.) to a position SE of Swartgrund (55˚14'N., 14˚15'E.). They should steer NE for 15 miles to a position WNW of Davids Banke (55˚22'N., 14˚41'E.) and then continue NE for about 85 miles to the TSS lanes situated SE of Olands Sodra Grund Light (56˚04'N., 16˚41'E.).

Route H.—Route H continues SE for 11.5 miles from Lighted Buoy No. 7 (54˚42.0'N., 10˚52.5'E.), at the S end of Store Baelt (Langelands Baelt), and joins Route T at the KO6/T63 LANBY (54˚36'N., 11˚09'E.).

Lubeck-Gedser Route.—The Lubeck-Gedser Route, which may best be seen on the chart, leads through Mecklenburger Bucht and is marked by lighted buoys. From the entrance to Die Trave (53˚58'N., 10˚53'E.), the track leads 8 miles NNE and about 40 miles NE to join Route T at the W end of the TSS situated in Kadet Rinne.

The approach route leading to Wismar (53˚54'N., 11˚27'E.) branches SSE from this route.

Fehmarn Belt

4.2 Fehmarn Belt (54˚35'N., 11˚12'E.), the passage leading between the SW coast of Lolland and Fehmarn, is entered at its W end between Markelsdorfer Huk (54˚32'N., 11˚04'E.), the NW extremity of Fehmarn, and a point on the coast of Lolland, 13 miles N. It is entered at the E end between Staberhuk, the SE extremity of Fehmarn, and Hyllekrog, a small and low island, located off the S end of Lolland.

Vessels are advised not to approach the N coast of Fehmarn or the S coast of Lolland within depths of less than 20m.

Return to paragraph: 3.73 4.2 4.20

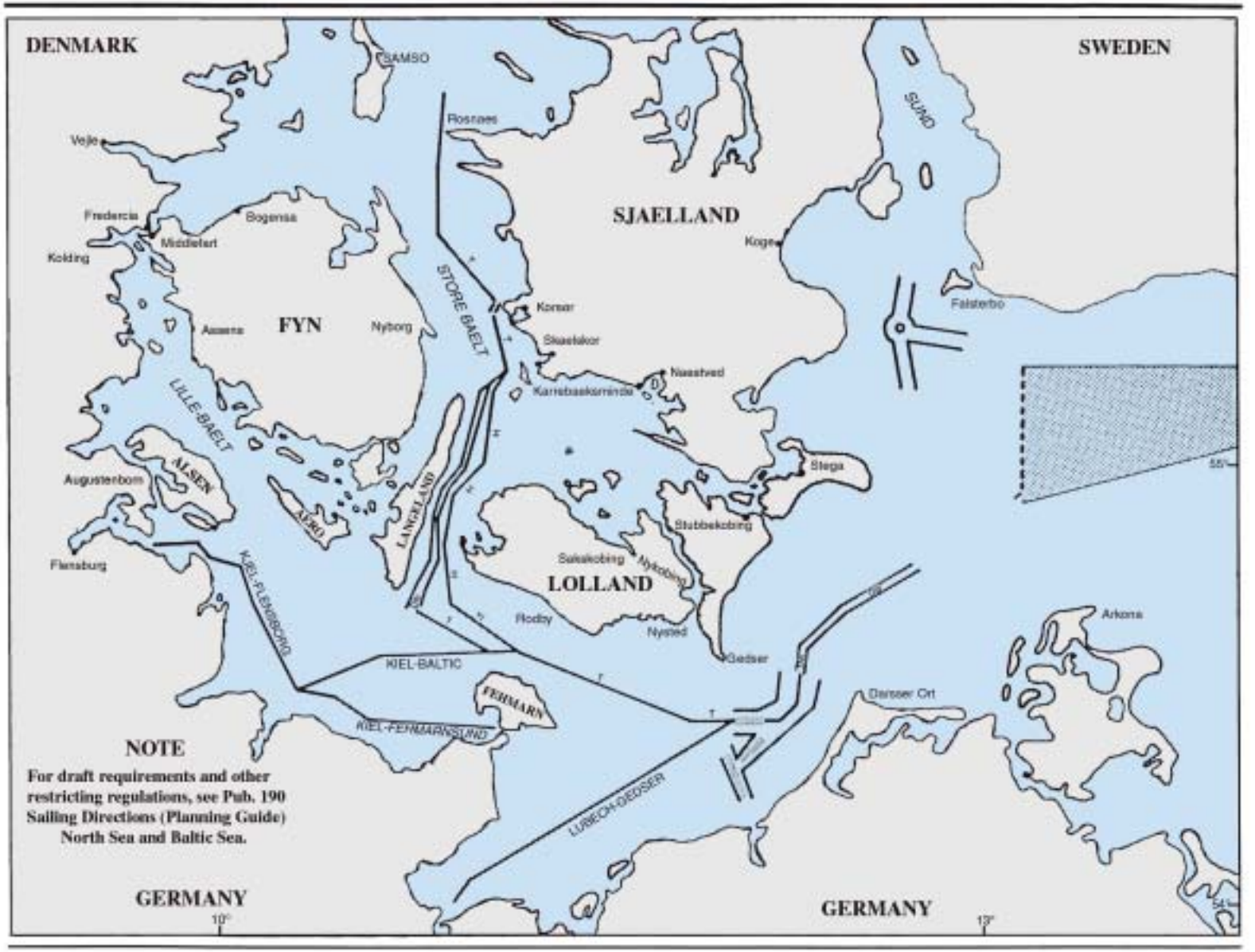


Table of Contents

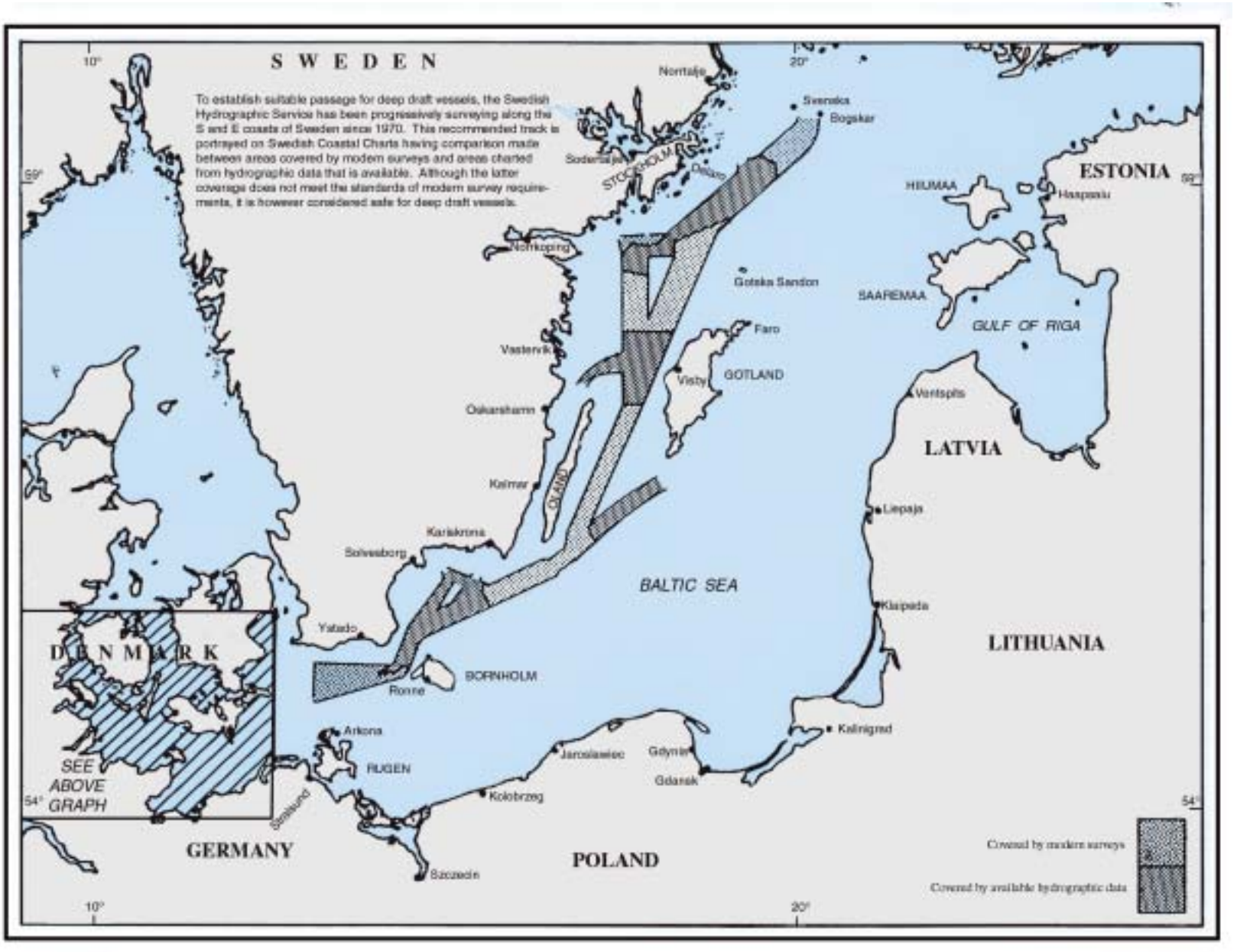


Table of Contents

Westermarkelsdorf Light (54˚35'N., 11˚12'E.), previously described in paragraph 3.71, is situated in the vicinity of Markelsdorfer Huk.

Lighted Buoy KO5/T62 (54˚36'N., 11˚01'E.), equipped with a racon, is moored about 4 miles NNW of Westermarkelsdorf Light. It marks the junction of the Kiel-Baltic (Kiel-Ostsee) Route and Route T.

KO6/T63 LANBY (54˚36'N., 11˚09'E.), equipped with a racon and floodlit, is moored about 5.2 miles NE of Westermarkelsdorf Light. It marks the junction of Route T and Route H.

Ojet Bank (54˚37'N., 11˚00'E.), a steep-to shoal patch, lies 5.2 miles N of Markelsdorfer Huk. It has a least depth of 9.4m and is located between Route T and Route H.

For information concerning routes, see paragraph 4.1.

4.3 South side.—Markelsdorfer Huk (54˚32'N., 11˚04'E.), the NW extremity of Fehmarn, is a low point backed by a lagoon. The coast extending ESE for about 7 miles from this point is protected by dikes. Within these dikes, there is an almost continuous series of lagoons separated by dams. Several churches standing along the shore are visible from seaward.

Niobe Denkmal, a conspicuous monument, stands on the foreshore, about 3.2 miles ESE of Markelsdorfer Huk.

Ohlenburgs Huk (54˚30'N., 11˚15'E.) is the NE extremity of Fehmarn. A main light (Marienieuchte) is shown from a prominent tower, 33m high, standing on the point. A disused light tower with a dwelling, square and yellow, is situated close SE of the light.

Marienleuchte Light

Puttgarden (54˚30'N., 11˚14'E.), a small harbor, is situated 0.6 mile NNW of Marienieuchte Light. It is protected by two breakwaters, which form an entrance, 85m wide. This harbor is the S terminal of the Lolland-Fehmarn ferry and is closed to general traffic. The approach channel is indicated by a lighted range and is marked by lighted buoys. It has a controlling depth of 8.5m.

A conspicuous radio mast stands 1.2 miles SW of the Puttgarden Harbor.

Staberhuk (54˚24'N., 11˚19'E.), the SE extremity of Fehmarn, is located 6 miles SSE of Ohlenburgs Huk and is fronted by rocks. The coast between is mostly formed by steep and crumbling cliffs. The shorebank, with depths of less than 10m, consists of stony foul ground and extends up to about 2 miles seaward in places. A main sector light is shown from a prominent tower with a dwelling, 23m high, standing on the point.

Caution.—An area, within which anchoring and fishing are prohibited, extends up to 3 miles NE from the vicinity of Ohlenburgs Huk and may best be seen on the chart. Several submarine cables are situated within this area.

A small prohibited area, marked by buoys, lies centered 2.8 miles NE of Ohlenburgs Huk and may best be seen on the chart.

Submarine cables, which may best be seen on the chart, extend NE across Fehmarn Belt from a point located close W of Puttgarden Harbor and extend ESE from a point located 1 mile S of Marienieuchte Light.

Care should be taken when identifying features on the N and W coasts of Fehmarn by radar due to the low shoreline.

Staberhuk Light

4.4 North side.—The SW coast of Lolland forming the N side of Fehmarn Belt is low and protected by dikes. It is fronted by several detached shoal areas, which extend up to 3 miles seaward. Several conspicuous churches are situated at villages along this stretch of coast.

Rodby Havn (54˚39'N., 11˚21'E.) (World Port Index No. 29710), a small harbor, is the N terminal of the Lolland-Fehmarn ferry. It is protected by two breakwaters, which form an entrance, 90m wide. The approach channel is indicated by a lighted range and is marked by lighted buoys. The entrance channel is dredged to a depth of 8.5m but is subject to silting. The outer part of the harbor has four berths for ro-ro passenger ferries, with depths of 7 to 8.5m alongside. The inner part of the harbor provides about 400m of commercial berthage. Vessels up to 80m in length, 20m beam, and 4.5m draft can be

Table of Contents

accommodated. Pilotage is not compulsory and local assistance is available for entry. Vessels are advised to keep strictly within the fairway as obstructions lie close adjacent to the edges. A conspicuous silo stands near the inner part of the harbor.

Hyllekrog (54˚36'N., 11˚30'E.) is a narrow and low island lying off the S coast of Lolland, 10.7 miles NE of Marienieuchte Light. A conspicuous framework radio mast, 120m high, stands on the mainland, 3.5 miles NNE of this island.

Caution.—A restricted area, within which anchoring and fishing are prohibited, extends up to 3 miles offshore in the vicinity of Hyllekrog and may best be seen on the chart.

Mecklenburger Bucht

4.5 The N side of Mecklenburger Bucht is bordered by the S coast of Lolland and the S part of Falster. Several islets, rocks, and a shallow shoal flat front this stretch between Hyllekrog (54˚36'N., 11˚30'E.) and Gedser Odde, 17 miles ESE, and extend up to about 5 miles seaward. Rodsand, a shifting sandbank, extends across the shallow flat and is mostly awash.

Three channels lead N through the dangers fronting the coast. Ostre Maerker, a buoyed channel, leads across the middle of the sandbank and has a controlling depth of 2.8m.

Rodsand Rende (54˚33'N., 11˚58'E.), a narrow channel, leads between the E end of Rodsand and the S end of Falster. From a position located about 3 miles SSW of Gedser Odde Light the channel leads N and has a controlling depth of 6.2m. The fairway is marked by lighted buoys and is indicated by a lighted range.

Kroghage Dyb (54˚33'N., 11˚58'E.), a narrow channel, leads between the E end of Rodsand and the S end of Falster. From a position located about 1.5 miles SE of Gedser Odde Light the channel leads NW. The fairway lies close to the coast and has a controlling depth of 4m.

Nysted (54˚40'N., 11˚44'E.) (World Port Index No. 29720), a small harbor, is situated on the S coast of Lolland, 10 miles NW of Gedser Odde Light. It can be reached from seaward through Ostre Maerker or Rodsand Rende. The entrance channel is marked by buoys and has a controlling depth of 3.5m over a width of 20m.

The commercial quay is 80m long and has a depth of 3.5m alongside. Vessels up to 80m in length, 20m beam, and 3.4m draft can be accommodated. Pilotage is compulsory for vessels over 300 tons. Local knowledge is advised. The water levels in the harbor and fairways may vary with the wind direction and force.

A conspicuous castle, with a truncated tower and a pointed tower, stands on the W side of Nysted and a prominent church is situated about 0.4 mile E of it.

4.6 **Guldborg Sund** (54˚39'N., 11˚52'E.) leads N between the E side of Lolland and the W side of Falster and forms the S approach to Nykoping (54˚46'N., 11˚52'E.). The channel is narrow, tortuous, and has a controlling depth of only 2.1m.

For information concerning Nykobing, see paragraph 2.44.

Gedser Odde (54˚34'N., 11˚58'E.), the SE extremity of Falster, is fronted by low cliffs. A main light, equipped with a racon, is shown from a prominent tower, 20m high, standing close NW of the point.

Gedser Rev (54˚30'N., 12˚10'E.), consisting of a chain of shoals, extends up to about 8 miles SE of Gedser Odde. It has depths of 2 to 8m and is marked by buoys. This shoalbank is formed mainly of chalk covered with sand and stones.

Gedser Odde Light

Gedser (54˚34'N., 11˚56'E.), a small harbor, is situated 1.5 miles NW of Gedser Odde and is the terminal for passenger ferries sailing from Warnemunde. It can be approached through Rodand Rende or Kroghage Dyb. The entrance, which is protected by two breakwaters, is 100m wide and has a controlling depth of 6.2m. The ferry berths have depths of 4 to 6.3m alongside. There are also facilities for pleasure craft and fishing vessels.

Caution.—Due to the constant changes in depths in the vicinity of Rodsand, large vessels are advised to stay in depths of at least 18m when proceeding through the N part of Mecklenburger Bucht.

Several submarine cables, which may best be seen on the chart, extend NE, SE, and SSE from the vicinity of Gedser Odde. The cables extending SSE to Markgrafenheide have been reported to cause deviations of up to 70˚ to the magnetic compass.

4.7 The W side of Mecklenburger Bucht is bordered by the stretch of coast extending between Staberhuk, the SE extremity of Fehmarn, and Dahmeshoved, 14.5 miles SW. The shore is generally bare, low, and protected by dikes in places. The coastal bank, with depths of less than 10m, extends up to about 2.5 miles seaward in places.

Burgstaken (54˚25'N., 11˚12'E.) (World Port Index No. 28908), a small harbor, is situated 4.3 miles WNW of Staberhuk. It lies on the N shore of Burger See, an inland bay, which is fronted by two narrow peninsulas. The entrance of the bay lies between two breakwaters, which extend from the extremities of the peninsulas. An approach channel, with a controlling depth of 4.5m over a width of 35m, leads NW into the inlet. It is marked by buoys and indicated by a sector light. The main commercial quay is 200m long and has depths of 3.5 to 5m alongside. The harbor is used by coasters, small craft,

Return to paragraph: 4.20 4.24

and fishing vessels. Anchorage, sheltered from N winds, can be taken, in depths of 5 to 7m, about 0.5 mile SE of the entrance to the bay. Local knowledge is advised. Several marinas are situated in the vicinity of the harbor.

A conspicuous church stands in the town of Burg, about 0.8 mile N of the harbor. A prominent watch tower is situated at the W end of the peninsula at the E side of the entrance to the bay.

Fehmarnsund (54˚24'N., 11˚06'E.), a narrow passage, leads between the S side of Fehmarn and the mainland. It is spanned by Fehmarnsund Brucke, a fixed road and rail bridge. For further information, see paragraph 3.72.

Grossenbroder Binnensee, a bay, lies 3.5 miles SSW of Fehmarnsund Bridge and is protected from E by a curved breakwater, about 0.6 mile long. Grossenbroder Hafen, a disused ferry harbor, is situated close W of the root of the breakwater. It is reported that an extensive marina lies in the NW part of the bay.

Dahmeshoved Light (54˚12'N., 11˚05'E.) is shown from a prominent tower, 28m high, standing close N of Dahmeshoved. A shoal, with a least depth of 4.8m, lies about 1 mile SE of the light and is marked by a buoy.

Dahmeshoved Light

Sagas Bank (54˚17'N., 11˚12'E.), with a least depth of 6.9m, lies centered 4 miles offshore, about 6 miles NE of Dahmeshoved Light. Deep-draft vessels are advised not pass between this shoal bank and the coast.

Caution.—A mine laying practice area, which may best be seen on the chart, fronts the E approach to Fahmarnsund and lies centered 7.5 miles NE of Dahmeshoved Light.

4.8 Lubecker Bucht (54˚05'N., 11˚02'E.), with Neustadter Bucht at its head, forms the SW part of Mecklenburger Buct. This bay is entered between Dahmeshoved and Gross Klutzhoved, 11.5 miles SSE.

During severe winters, ice may close the inner parts of Lubecker Bucht. However, as long as the bay areas remain passable, icebreakers generally keep the river approaches and ports open.

Between Dahmeshoved and Pelzerhaken, 10 miles SW, the coast is low and sandy for the first 5 miles and then becomes higher. It is fronted by foul ground.

Pelzerhaken Light (54˚12'N., 11˚05'E.) is shown from a prominent tower, 19m high, with several dwellings situated near it. A conspicuous gray tower stands 0.5 mile NE of this light.

Lighted Buoy No. 1, marking the Lubeck-Gedser Route, is moored about 6 miles E of Pelzerhaken Light.

Pelzerhaken Light

Walkyriengrund (54˚07'N., 11˚02'E.), an area of rocky shoals and foul ground, lies centered about 3 miles offshore, 6 miles ENE of Pelzerhaken Light. It has a least depth of 8.6m and lies on the N side of the recommended route.

Gromitz (54˚09'N., 10˚57'E.), an extensive yacht harbor, is situated 5.5 miles SW of Dahmeshoved. A church, with a prominent tower and surrounded by poplar trees, stands in the town, which is a tourist resort.

Between Gross Klutzhoved and the approaches to Travemunde, 11 miles WSW, the coast is hilly.

A conspicuous radio tower, 99m high, is reported (2000) to stand about 0.8 mile inland, 3 miles WSW of Gross Klutzhoved. Prominent churches are situated at Kalkhorst and Elmenhorst located about 5.5 miles and 3 miles, respectively, WSW of Gross Klutzhoved.

Caution.—An explosives dumping ground area, which may best be seen on the chart, lies centered 3 miles E of Pelzerhaken Light.

Several wrecks lie within Lubecker Bucht and may best be seen on the chart.

Several submarine exercise areas lie within Lubecker Bucht and may best be seen on the chart.

4.9 Neustadter Bucht (54˚03'N., 10˚49'E.) lies at the NW side of Lubecker Bucht between Pelzerhaken and the mouth of Die Trave, 7 miles SSE. The coast of this bay is alternately low and hilly with occasional wooded areas. Several tourist resorts, fronted by shallow piers, are situated along the shore.

Table of Contents

Neustadt Hafen (54˚06'N., 10˚49'E.) (World Port Index No. 28900), a small harbor, is situated along the sides of a narrow inlet, which indents the NW shore of Neustadter Buchtand and leads to a lake. It is used by coasters, small craft, fishing vessels, and yachts. A channel, marked by buoys, leads NNW into the harbor and is indicated by lighted ranges. The fairway has a controlling depth of 5.8m over a least width of about 40m.

The harbor provides about 600m of total commercial quayage, with depths of 4 to 5.5m alongside. Vessels up to 120m in length, 20m beam, and 5m draft can be accommodated. Vessels over 90m in length, 14.5m beam, and 4.2m beam must request special prior permission to enter. Local pilots are available and may be contacted on VHF channel 13.

A church, several radio masts, and several water towers, all prominent, are situated in the town. Several conspicuous chimneys stand next to a high-rise building in the E part of the town.

A conspicuous tower, 12m high, stands on Gomnitzberg, a prominent hill, which rises 2.5 miles W of the Neustadt and has an elevation of 92m.

Niendorf (54˚00'N., 10˚48'E.), a small harbor, lies on the S shore of Neustadter Bucht, about 5.8 miles SSW of Pelzerhaken Light. It is used by yachts and fishing vessels. The entrance, which is protected by breakwaters, is 15m wide and has a controlling depth of 3.1m. A conspicuous tower stands near the shore, about 1 mile E of this harbor.

Stein Riff (54˚00'N., 10˚54'E.), an extensive rocky shoal area, fronts the S side of Neustadter Bucht and extends up to about 3.4 miles NE of Niendorf. It has depths of 2 to 9m and is marked by buoys.

Caution.—A submarine exercise area lies in the E part of Neustadter Bucht and may best be seen on the chart.

An explosives dumping ground area lies in the W part of Neustadter Bucht and may best be seen on the chart.

A small area, within which unexploded ordnance exists, lies on the SE side of Stein Riff, about 2.3 miles ENE of Niendorf, and may best be seen on the chart.

Extensive fishing is carried out during the winter months in Neustadter Bucht and off the estuary of Die Trave.

Travemunde (53˚58'N., 10˚53'E.)

World Port Index No. 28880

4.10 Travemunde, the outport for Lubeck, is situated at the mouth of Die Trave (Trave River), on the S side of Lubecker Bucht. It is a main passenger ferry terminal and fishing center in addition to being a popular tourist resort. The marine facilities and installations line both sides of the river up to 1 mile above the entrance.

Ice.—Generally, the channel from Travemunde to Lubeck is kept open by icebreakers as long as Lubecker Bucht is passable. When the bay is closed, navigation ceases on the river. Usually icebreakers are used on an average of 12 days per season, but they have been required up to 60 days. Normally, the ice season starts in the middle of January and lasts until the middle of February, but ice has appeared as early as the middle of December and remained until the beginning of April.

Tides—Currents.—Winds from NNW through N to E cause an inflowing current while winds from S to W cause an outflowing current. The rate of these currents seldom exceeds 2 knots.

Immediately outside the entrance, the inflowing current sets SW in the center of the approach channel and along the SE side. However, at the NW side of the channel, the inflowing current sets S across the port entrance. The outflowing current divides into two branches at the river entrance. One branch follows the direction of the approach channel as far as the roadstead and the other branch sets S towards the Mecklenburg coast. These branches have sometimes attained rates of up to 4 knots. Inside the entrance, the currents follow the direction of the river, but are deflected to the N by the curve of the harbor. Close inshore, a countercurrent may be encountered which usually attains a rate of half the rate of the current in the center of the river.

In exceptional cases, winds from N to ESE can raise the water level in the entrance by up to 3.3m and winds from N to ESE can lower it by as much as 2m. Generally, the fluctuations of the water level are limited to about 1m.

Travemunde

Depths—Limitations.—The fairway channel leading SW from the S end of the recommended route into the river entrance is 100m wide and is dredged to a controlling depth of 10m.

The harbor is mostly used by yachts, fishing vessels, and passenger ferries. Several extensive marinas are situated on both sides of the river. The main commercial facilities are located at the N and W sides of the river.

Ostpreussenkai, 200m long, is situated on the N side of the harbor about 0.7 mile W of the entrance. This quay has a depth of 7.1m alongside and is mostly used by cruise vessels.

Kaiserbrucke, situated close E of Ostpreussenkai, is 52m long and has a depth of 8m alongside.

Kohlenhofkai, a coaling quay, is situated on the S side of the harbor opposite Ostpreussenkai. It is 200m long and has a depth of 8m alongside. This quay is not for commercial use.

Entrance to Travemunde

Skandinavienkai is situated at the W side of the harbor and provides 2,050m of total quayage. It has nine berths with facilities for container and ro-ro vessels. The berths are 135 to 290m long and have depths of 9.5m alongside.

Aspect.—A main light, equipped with a calibration radiobeacon, is shown from the top of a conspicuous building, 113m high, standing 0.3 mile W of the harbor entrance.

Travemunde Main Light (building)

Trave Lighted Buoy, marking the outer approach, is moored about 3 miles NE of the main light. The dredged approach channel is marked by lighted buoys and indicated by a lighted range. A light is shown from a prominent floodlit tower, 9m high, standing at the head of the N breakwater.

A prominent church, with a slender spire, stands on the N side of the river, about 0.7 mile SW of the main light. A prominent castle (white building) is situated at Potenitz, about 1.7 miles SE of the main light.

Pilotage.—Pilotage is compulsory for vessels of 60m or more in length, vessels with a beam of 10m or more, and all oil, gas, and chemical tankers.

Vessels should send a request for pilotage at least 3 hours in advance of arriving at Lighted Buoy No. 1 (53˚58.8'N., 10˚54.7'E.) or immediately upon departure from the last port, if the voyage is less than 3 hours. Pilots can be contacted by VHF (Lubeck Pilot) and board about 1.5 miles NE of the harbor entrance.

Travemunde Breakwater Light

Vessels of 60m or more in length or with a beam of 10m or more passing Lubeck-Gedser Route Lighted Buoy No. 1 (54˚04.6'N., 11˚02.0'E.) must provide their name, beam, grt and nrt, and the position to which pilotage is requested or whether the vessel is exempt from pilotage.

The pilotage service can be contacted by E-mail at Luebeckpilot@tonline.de.

Regulations.—A Vessel Traffic Service (VTS) system operates in the approaches to Die Trave. It is mandatory for all vessels with a beam over 6m, including pushed or towed composite units.

Vessels must maintain a continuous listening watch with VTS Center Trave Traffic on VHF channel 13.

A Sailing Plan (SP) must be sent to VTS Center Trave Traffic on VHF channel 13 before transiting Travemunder Enge (narrows) or Trave-Strecke as follows:

1. Before transiting Travemunder Enge:
   a. Immediately before departing Travemunde.
   b. Before passing Lubeck-Gedser Route Lighted Buoy No. 1 (inbound only).
2. Before transiting Trave-Strecke:
   a. Immediately before departing Lubeck.
   b. Before passing Lubeck-Gedser Route Lighted Buoy No. 1 (inbound only).

A Position Report (PR) must be sent to VTS Center Trave Traffic on VHF channel 13 when passing the following reporting points:

1. Before transiting Travemunder Enge:
   a. Trave Outer Lighted Buoy (inbound only).
   b. Lighted Buoy No. 1 (53˚58.8'N., 10˚54.7'E.) (inbound only).
   c. Light No. 8 (53˚56.5'N., 10˚52.0'E.) (outbound from Lubeck).
   d. A line joining Stulper Huk and Light No. 16 (53˚55.1'N., 10˚52.3'E.) (outbound from Lubeck).

2. Before transiting Trave-Strecke—Light No. 16 (inbound only).

A Deviation Report (DR) must be sent in case of amendments to the SP.

An Incident Report (IR) must be sent in case of an incident impairing safety or the environment.

For the format for the SP and the PR, see Regulations for Kieler Forde in paragraph 3.63.

Traffic information is broadcast every 3 hours from 0600 to 2100 by Trave Traffic on VHF channel 13.

Vessels are not allowed to meet in Travemunder Enge, the narrows at the harbor entrance. If there is any uncertainty when meeting, vessels proceeding seaward have priority.

Speed restrictions apply within the harbor.

Anchorage.—Vessels can anchor, in depths of 15 to 17m, mud and clay mixed with sand, within a roadstead lying about 2 miles NE of the harbor entrance on the N side of the approach route. This roadstead is open to winds from the NE, which may create a choppy sea at times.

Caution.—A submarine power cable, which may best be seen on the chart, extends NE from a point located on the shore about 0.6 mile E of the harbor entrance. Magnetic compass deflections of up to 70˚ have been observed in the vicinity of this cable.

Several submarine gas pipelines and cables extend across the harbor and may best be seen on the chart.

Ferries cross the harbor about 0.3 mile and 0.9 mile above the entrance.

4.11 Die Trave (53˚57'N., 10˚52'E.), a narrow and tortuous river, extends in a SW direction to Lubeck, which stands about 10 miles above Travemunde. Untertrave, the fairway channel, is marked by buoys and beacons, and is indicated by lighted ranges.

A number of comparatively shallow bays, which may best be seen on the chart, can be entered from the river. In many places along the river the shore lies within nature reserve areas.

Depths—Limitations.—The fairway channel is dredged to a controlling depth of 10m over a bottom width of 100m as far as Sienchenbucht, about 1.4 miles above the mouth of the river. From Sienchenbucht to the port area of Lubeck, the fairway channel is dredged to a controlling depth of 9.5m over a bottom width that gradually decreases from 100m to 60m. There are three turning basins, up to 400m wide, situated within the river.

Herrenbrucke, a double-bascule lift bridge, spans the river at Siems (53˚54.2'N., 10˚46.2'E.) and has a navigable width of 52.9m. It has a vertical clearance of 21m when the span is closed.

Speed restrictions are in force within the river and in the vicinity of the bridge.

Herrenwyk (53˚54'N., 10˚48'E.), the site of a prominent smelting works on the N shore, is fronted by a small basin. There is a berth, 450m long, with depths of 8 to 10m alongside.

Flenderwerft A.G., a shipyard with two floating drydocks, is situated about 0.6 mile W of the above basin. Lehmannkai II, a quay, adjoins the E side of the shipyard. It is 350m long and has depths of 7 to 7.5m alongside.

An extensive power plant stands on the N shore at Siems, about 1 mile NW of the shipyard. It is fronted by several quays with depths of 7.5 to 9m alongside.

Schlutup (53˚54'N., 10˚48'E.), a town standing on the S shore of the river, has a narrow basin on its W side with depths of 2 to 5m alongside. A quay, about 200m long, is situated on the E side of the town and has depths of 4 to 5m alongside.

Caution.—Several submarine pipelines and cables cross the channel leading to Lubeck and may best be seen on the chart.

Several ferries cross the channel leading to Lubeck.

Lubeck (53˚53'N., 10˚42'E.)

World Port Index No. 28890

4.12 The port of Lubeck lies within an important industrial center and is the N terminal of the Elbe-Lubeck Kanal (Elbe-Trave Kanal). The main part of the city is situated on an island which is surrounded by basins and waterways. The port area is divided into an outer and inner harbor. The outer harbor serves ocean-going vessels while the inner harbor is primarily used by small craft, barges, and canal traffic.

Depths—Limitations.—There are ten main quays, 550 to 1,200m long, with depths of 6 to 9.5m alongside. Vorwerker Hafen, a basin, is situated in the NW part of the harbor and is 940m long. Umschlaghafen consists of several quays fronting the E side of the river, S of Vorwerker Hafen. Burgtorhafen, with quays on both sides, is that part of the river lying between Umschlaghafen and Walhalbinsel. Walhalbinsel is a peninsula located in the S part of the harbor. Wallhafen, a basin, lies on the N side of Walhalbinsel and is 1,118m long. Hansashafen, a basin, lies on the S side of Walhalbinsel and is 1,185m long.

There are facilities for general cargo, bulk, tanker, container, cruise, and ro-ro ferry vessels. Vessels of up to 64,000 dwt and 9.3m draft can be accommodated.

The Elbe-Lubeck Kanal, with seven locks, leads S from the port and connects with the Elbe River at Lauenburg, a distance of about 42 statute miles. It can be used by lighters up to 1,200 dwt, 80m in length, 11.6m beam, and 2m draft.

Pilotage.—See Travemunde (paragraph 4.10) for information concerning pilotage and the VTS system operating in the approaches to Die Trave.

4.13 Wismar Bucht (53˚59'N., 11˚20'E.), a large bight, is situated on the S side of Mecklenburger Bucht and lies between Gross Klutzhoved (54˚01'N., 11˚11'E.) and Wustrow, 14 miles ENE. It is encumbered with extensive sandbanks. Wismar is situated at the S end of a bay at the head of the bight.

Wustrow, a peninsula, extends about 5 miles SW from the mainland at the E side of the bight. Salz Haff, a shallow area of water, lies on the inside of this peninsula. The coastal bank, with depths of less than 5m, extends about 1 mile W and 1.5 miles NW from the W end of Wustrow.

Tarnewitzer Huk (54˚00'N., 11˚14'E.) is located on the NW side of the bight, 3 miles SE of Gross Klutzhoved. Boltenhagen Bucht lies between these two points. This bay provides anchorage, in depths up to 18m, sand and mud with good holding ground.

Lieps (54˚00'N., 11˚17'E.), an extensive and shallow shoal area, extends about 3 miles NE from Tarnewitzer Huk across

the W side of the entrance to the bight. A directional light is shown from a mast, 10m high, standing on the SE part of the shoal, about 2 miles E of Tarnewitzer Huk.

Schweinskothel, a large shoal area with depths of less than 5m, lies centered 1 mile NE of Lieps Light. Sechersgrund, a detached shoal with a least depth of 4.7m, lies 0.5 mile ENE of Lieps Light.

Hannibal (54˚02'N., 11˚22'E.), an extensive rocky shoal with depths of less than 5m, lies near the middle of the entrance to Wismar Bucht and is centered 4.7 miles NE of Tarnewitzer Huk.

Wohlenberger Wiek, a large bay, lies S of Lieps and provides sheltered anchorage, in depths of 7 to 9m.

Poel (54˚00'N., 11˚27'E.), a low and treeless island, occupies the SE part of Wismar Bucht and lies on an extensive shorebank. This large island is connected to the mainland at its SE side by a road bridge, which spans a shallow sound. Langenwerder, an islet, lies close off the NE extremity of the island.

Kirch See, a narrow and shallow inlet, indents the S side of the island and extends about 2 miles N. A narrow fairway, marked by buoys and indicated by a lighted range, leads N into the inlet and to the village of Kirchdorf, which stands at the head. The village is fronted by a small harbor, which is used by fishing boats, and two marinas. A conspicuous church, with a steeple, stands on the W side of the head of this inlet.

Walfisch, an islet, lies 1.2 miles SSW of the entrance to Kirch See.

4.14 Timmendorf Light (53˚59'N., 11˚23'E.), a main directional light, is shown from a prominent tower with a dwelling, 21m high, standing on the W extremity of the island. A small harbor, with a controlling depth of about 3m, is situated close W of the light and is used by pilot boats, fishing vessels, and pleasure craft.

Timmendorf Light

Mittelgrund, a detached shoal patch, with a least depth of 4.7m, lies about 1.3 miles WSW of Timmendorf Light and is marked by a buoy.

Die Platte, a large shoal area with depths of less than 5m, lies centered 1.1 miles NW of Timmendorf Light.

Flagtief, a narrow channel, leads S between the E side of this shoal area and the W side of the shorebank fronting the NW part of Poel. It may be used by small vessels with drafts up to 4m. Local knowledge is required.

Gollwitz N Light (54˚01.5'N., 11˚28.3'E.), a sector light, is shown from a prominent tower on a building, 10m high, standing on the NE part of the island, 3.8 mile ENE of Timmendorf Light.

Gollwitz N Light

Gollwitz W Light (54˚01.5'N., 11˚28.0'E.), a sector light, is shown from a prominent tower on a building, 13m high, standing close WNW of Gollwitz N Light.

Wismar Lighted Buoy (54˚06'N., 11˚26'E.), marking the entrance to Grosses Tief, is moored about 4.7 miles NNW of Gollwitz N Light.

Offen Tief Lighted Buoy (54˚02'N., 11˚17'E.), marking the entrance to Offen Tief, is moored about 4 miles NW of Timmendorf Light.

Grosses Tief (54˚05'N., 11˚27'E.), the main approach channel, is entered about 3.5 miles NW of the NW side of Wustrow. It leads SSE for 2.5 miles from the vicinity of the Wismar Lighted Buoy and passes W of the shorebank fronting the W side of Wustrow. The track lies in the white sector of Gollwitz N Light. The channel then leads SW and W, passing between Hannibal and the shorebank fronting the N side of Poel, into Krakentief, a pool lying on the E side of Lieps.

From Krakentief, a dredged fairway leads S, SE, and SSE to the port of Wismar. This fairway passes between Die Platte and Schweinskothel and then between Mittelgrund and Sechersgrund. It rounds the SW side of Poel and passes between Walfisch and Fliemstorf Huk, a point on the mainland 0.7 mile SW.

The channel is marked by lighted buoys and indicated by lighted ranges, which may best be seen on the chart.

Lighted Buoy No. 17, moored 1.8 miles WSW of Timmendorf Light, marks the turn in the channel and is equipped with a racon.

4.15 Offen Tief (54˚02'N., 11˚18'E.), a secondary channel, leads SE from the vicinity of Offen Tief Lighted Buoy over the narrow neck of the shoalbank connecting Lieps and Hannibal into Krakentief. It is marked by buoys. Local knowledge is advised.

Depths—Limitations.—Grosses Tief has a controlling depth of 9.5m and can be used by vessels with drafts up to 8.2m.

Table of Contents

Offen Tief has a controlling depth of 5.1m and can be used by small craft with drafts up to 3.1m.

Caution.—A spoil ground dumping area lies about 1 mile S of Offen Tief and may best be seen on the chart.

Several nature reserves, which are closed to commercial shipping and fishing vessels, lie within the coastal areas of Wismar Bucht and may best be seen on the chart.

Navigation outside the main fairway channel at night is not recommended for vessels without local knowledge.

Wismar (53˚54'N., 11˚28'E.)

World Port Index No. 28870

4.16 Wismar, situated in an industrial area, is a ship-building and repair center in addition to being a commercial port.

Ice.—Ice conditions in Wismar Bucht are much the same as those elsewhere within the Lubecker Bucht area. However, due to the shallowness of the channels and the lack of currents, ice may appear earlier in the season, usually around the beginning of January. The winter season lasts until the end of March. Icebreakers generally maintain an open channel from the sea to the port of Wismar.

Tides—Currents.—Winds from the N, and winds from the E if winds from the W have previously prevailed, can cause a rise in the water level. Winds from S or W can lower the water level. Fluctuations of up to 0.9m occur frequently. Gales from NE can raise the water level by up to 2.8m and gales from SW can lower it by as much as 1.9m.

The currents in the bight are caused by the winds and are normally slight, being noticeable only in the deeper channels during prolonged winds from the same direction.

Depths—Limitations.—The port is fronted by a turning area, 280m wide, with a depth of 9.5m. A shipyard, with a drydock, is situated at the W side of the port. It is fronted by Werfthafen, a basin, which has depths of 6.5 to 9.5m and provides fitting out berths. Westhafen, a basin located in the S part of the port, is 600m long. It has a depth of 6.5m and provides shipyard berths. Alter Hafen, a basin located in the SE part of the port, has depths of 6.7 to 8.2m. Its outer section is used by timber vessels and its inner section is used by fishing vessels.

Olhaven, located in the N part of the port on the NE side of the channel, is a chemical and oil terminal. Uberseehafen and Kalihafen, located in the E part of the port, are two commercial basins. They provide about 1,600m of total quayage with depths of 5.1 to 9.5m alongside.

There are facilities for timber, bulk, tanker, chemical, passenger, general cargo, and ro-ro vessels.

Vessels up to 210m in length, 28m beam, and 8.2m draft can be accommodated. Tankers up to 150m in length and 8.2m draft can be handled.

Aspect.—The fairway channels leading to the port are marked by sector lights, lighted ranges, and lighted buoys.

A church, with a conspicuous steeple, stands at Klutz, 3 miles SSW of Gross Klutzhoved. A prominent church is situated at Hohenkirchen, 5 miles SE of Klutz. A prominent high building is reported to stand at Wendoff, about 0.7 mile WNW of the port. Numerous cranes standing at the shipyards in the port area are conspicuous.

Pilotage.—Pilotage is compulsory for the following:

1. Tankers carrying gas, chemicals, petroleum, or petroleum products.
2. Unloaded tankers, if not cleaned, degassed, or completely inerted after having carried petroleum or petroleum products with a flashpoint below 35 C.
3. Other vessels over 70m in length or with a beam greater than 11m.

Vessels should send a request for pilotage and an ETA at the boarding place at least 4 hours in advance. The message must state the following information:

Designator	Information Required
A	Vessel name and call sign.
U	Length (in meters), beam (in decimeters), and grt.
H	ETA at pilot boarding position.
O	Draft (in decimeters).
I	Port of destination.

Pilots can be contacted by VHF (Timmendorf Pilot) and board, as follows:

1. Vessels over 90m in length or 5.2m draft in the vicinity of Wismar Lighted Buoy (54˚06'N., 11˚26'E.).
2. Vessels of 90m in length or 5.2m draft and less in a position about 2.2 miles NW of Gollwitz N Light.
3. Vessels of 3.1m draft and less in the vicinity of Offen Tief Lighted Buoy (54˚ 02'N., 11˚ 17'E.).

Regulations.—A Vessel Traffic Service (VTS) operates in the approaches to Wismar Bucht and is mandatory for the following:

1. Vessels of 17m in length and over, including composite units.
2. Vessels carrying dangerous goods in bulk (gas, chemicals, petroleum, or petroleum products).
3. Unloaded tankers if not cleaned, degassed, or completely inerted after carrying petroleum or petroleum products with a flashpoint below 35˚C.
4. Nuclear-powered vessels.

Vessels entering the VTS area must maintain a continuous listening watch on VHF channel 12 or 16. It is mandatory to send the following reports:

1. Sailing Plan (SP)—An SP must be sent to VTS Center Wismar Traffic on VHF channel 12, as follows:
   a. When entering the VTS area from seaward 1 hour before passing Wismar Lighted Buoy or Offen Tief Lighted Buoy.
   b. Before leaving a harbor or berth within the VTS area.
2. Position Report (PR)—A PR must be sent to VTS Center Wismar Traffic on VHF channel 12, as follows:
   a. After embarking the pilot.
   b. When leaving the fairway.

c. When entering or leaving an anchorage or berth within the VTS area.
d. When passing the following reporting points:
i. Wismar Lighted Buoy.
ii. Offen Tief Lighted Buoy.
iii. Lighted Buoy No. 12 (54˚01.1'N., 11˚22.2'E.), stating if Flaggtief fairway is to be used.
iv. Lighted Buoy No. 22 (53˚58.1'N., 11˚21.4'E.) stating if Flaggtief fairway is to be used.
3. A Deviation Report (DR) must be sent in case of amendments to the SP.
4. An Incident Report (IR) must be sent in case of an incident impairing safety or the environment.

For the format for the SP and PR, see Regulations for Kieler Forde in paragraph 3.63.

Information broadcasts are made by VTS Wismar Traffic on VHF channel 12 in German (and on request, in English) on request and at 0230, 0630, 0930, 1230, 1530, 1830, and 2130. The broadcast includes information relevant to the safe passage through the VTS area and general traffic situation details including local storm warnings, weather, visibility, ice, casualties, and dredging operations.

Speed is limited to 5 knots within the harbor.

Tugs are mandatory for vessels over 1,600 grt and for all vessels carrying dangerous cargoes.

Vessels over 125m in length or 7.3m draft are not permitted to transit the approach fairway channels in Wismar Bucht without permission from the Captain of the Port of Wismar.

Anchorage.—A designated outer anchorage area, which may best be seen on the chart, lies centered 3 miles N of Hannibal. It has depths of 11 to 16m, with a sand and stone bottom.

A designated inner anchorage area, which may best be seen on the chart, lies centered 0.9 mile WSW of Timmendorf Light. It has depths of 6 to 9m, with a bottom of mostly mud.

Directions.—Vessels should use the Lubeck-Gedser Route, which may best be seen on the chart, and then proceed in a S direction toward the Wismar Lighted Buoy (54˚06'N., 11˚26'E.).

Caution.—High speed ferries, many of which use the Offen Tief channel, may be encountered in the approaches to Wismar.

4.17 From Wustrow, at the E side of the entrance to Wismar Bucht, the S coast of Mecklenburger Bucht continues E for 15 miles to Warnemunde. The Warnow River discharges at Warnemunde and the town of Rostock is situated 5 miles above its mouth.

Buk Light (54˚08'N., 11˚42'E.) is shown from a prominent tower with a dwelling, 21m high, standing 1.2 miles SSE of Buk Spitze, a low-lying point.

A prominent hill, 128m high, rises 2.8 miles SE of the light. A conspicuous church stands near the shore at Rerik, 3.2 miles SW of the light.

Between Buk Spitze and the village of Heiligendamm, 5.5 miles E, there are hills and woods, but then as far as Warnemunde the land becomes lower and less wooded. The shorebank fronting this section of the coast is encumbered with numerous large stones and extends up to about 1.5 miles seaward in the vicinity of Buk Spitze.

Buk Light

Warnemunde Light (54˚11'N., 12˚05'E.) is shown from a prominent tower, 31m high, standing on the W side of the entrance to the Warnow River. A conspicuous church, with a slender spire, stands at Bad Doberan, 7.7 miles SW of the light.

It is reported (2001) that prominent groups of wind generators are situated at Diedrichshagen, 2.5 miles WSW of the light, and at Nienhagen, 5 miles WSW of the light.

Caution.—An explosives dumping area, which may best be seen on the chart, extends up to about 5 miles offshore between Wustrow and Buk Spitze.

A measured distance area, which may best be seen on the chart, lies 2.5 miles offshore and is centered 4 miles NE of Buk Light. It is indicated by pairs of beacons. Anchoring and fishing are prohibited in the vicinity of this measured distance area.

A marine farm area, which may best be seen on the chart, lies centered 2.8 miles NNE of Buk Light.

A marine farm area, which may best be seen on the chart, lies 0.7 mile offshore, 5 miles W of Warnemund.

Rostock (54˚06'N., 12˚08'E.)

World Port Index No. 28860

4.18 The town of Rostock stands 5 miles above the mouth of Die Warnow (Warnow River). The extensive industrial port of Warnemunde-Rostock extends along the river and includes several shipyards. The port is also an important transshipment center and ferry terminal.

Ice.—Due to its position on the open sea, Warnemunde remains ice free longer than Wismar and the other German harbors to the E. In average years, the first ice appears around the end of December and remains until the last days of February. The mouth of the river seldom freezes and then only for short periods. As long as the open sea and approaches remain ice free, the river channel and harbor basins are kept open by icebreakers.

Tides—Currents.—The coastal current sets mostly E and may attain a rate of 3 knots. The current only sets W after persistent E winds. The current in the river flows mostly

Table of Contents

Warnemunde Light

seaward and with little strength in clam weather. After persistent N winds followed by sudden offshore winds, the outgoing current can attain a rate of 4 knots, particularly along the E breakwater. With strong onshore winds the current flows inshore and across the entrance from the W breakwater. Strong SW winds may cause a current to flow E across the entrance.

Generally, the water level is decreased by winds from SSE to W and increased by winds from NW to NE. The daily fluctuations seldom exceed 0.3m. However, the water level can be raised by up to 2.5m by isolated gales from NW to NE and lowered as much as 1.6m by gales from SSE to W.

Depths—Limitations.—Depths in the approach channel and main entrance fairway (Seekanal) are maintained by dredging. The main channel (Seekanal) leads SSE for 2 miles to Rostock-Uberseehafen. It then leads S for 4 miles, following the river, to Rostock-Stadthafen. This channel has controlling depths of 14.5m as far as the oil terminal in Uberseehafen, 12m as far as Dorf Schmarl (54˚08.2'N., 12˚05.7'E.), 9m as far as the entrance to Marienehe Basin (54˚07.1'N., 12˚05.8'E.), and 6.5m as far as Rostock-Stadthafen.

A secondary channel (Neuer Strom), lying close W of the main channel, leads SSE to the harbor of Warnemunde, located at the W side of the river. It has a controlling depth of 6m. This channel joins the main fairway about 2 miles S of the river entrance.

Alter Strom, a shallow basin, is entered close S of the root of the W breakwater. It is used by fishing vessels and pleasure craft. A ferry terminal basin lies 0.3 mile SSE of the entrance to Alter Strom. It has a depth of 6.4m and can handle passenger ferry vessels, with drafts up to 5.5m.

Passagierkai, 240m long, extends SSE from the ferry terminal basin and has a depth of 9m alongside. It is approached through the main channel (Seekanal) and can handle passenger vessels up to 180m in length and 7.9m draft. A turning basin, with a depth of 9m, lies close S of the S end of this quay.

A shipyard is situated on the W side of the river, S of the turning basin. It is fronted by several fitting out berths, with depths of 5 to 9m alongside. Vessels up to 200,000 tons can be constructed in this yard. There is also a floating repair drydock, which is 230m in length and 50.3m wide.

Breitling, a shallow area of water, lies on the E side of the river, 1 mile S of the entrance. A naval base is situated on the N side of this area and is fronted by several berths, with depths of 4 to 6m alongside. The N part of the area is prohibited to commercial marine traffic.

The main commercial harbor (Rostock-Uberseehafen) lies on the S side of Breitling and consists of three basins, an oil terminal, and a chemical terminal. A turning basin, with a depth of 14.5m, lies in the entrance. There is about 9,000m of total quayage, providing 43 berths, with depths of 10.5 to 14.5m alongside. There are facilities for ro-ro, container, general cargo, bulk, and tanker vessels.

Vessels up to 260m in length, 40m beam, and 13m draft can be accommodated. Chemical tankers are limited to a length of 180m and a draft of 9.5m. Vessels over 230m in length, 36m beam, or 12m draft must obtain special permission from the authorities prior to entering.

Marienehe Basin is situated at the W side of the river, about 2 miles S of Rostock-Uberseehafen. It provides 850m of total quayage, with a depth of 6.5m alongside, and is used by fishing vessels with drafts up to 5.5m.

Warnowkai, about 900m long, extends N from the N side of Marienehe Basin. It provides four berths and has a depth of 9m alongside. There are facilities for reefer cargo and vessels with drafts up to 7.9m can be handled.

Rostock-Stadthafen, the old section of the port, lies 3 miles S of Rostock-Uberseehafen and fronts the city. There are seven commercial berths, with depths of 6 to 7.3m alongside, and facilities for small craft and yachts. Vessels up to 125m in length and 6.3m draft can be accommodated.

Aspect.—The entrance channel is marked by lighted buoys and is indicated by a lighted range. Rostock Lighted Buoy is moored about 7.5 miles NNW of the river entrance and marks the outer approaches.

Warnemunde Light, previously described in paragraph 4.17, is located on the W side of the entrance to the river. A conspicuous hotel, 64m high, stands 0.3 mile WSW of the light. Prominent churches are situated at Lichtenhagen, about 3 miles SW of the light, and in Warnemunde, 0.3 mile S of the light.

Numerous prominent chimneys, radio masts, and towers are situated within the port area. Several conspicuous high buildings and churches, with prominent spires, stand in the vicinity of the city of Rostock and are also visible from seaward.

Pilotage.—Pilotage is compulsory for the following:

1. Tankers carrying gas, chemicals, petroleum, or petroleum products.
2. Unloaded tankers, if not cleaned, degassed, or completely inerted after having carried petroleum or petroleum products with a flashpoint below 35 C.
3. Other vessels over 90m in length or with a beam greater than 13m (up to Berth No. 60 Warnowpier).

4. Other vessels over 55m in length or with a beam greater than 8m (further upriver to Stadhafen Rostock).

Pilots can be contacted on VHF channels 14 and 16 and usually board, as follows:

1. Vessels with drafts over 11.58m in position 54˚17'N, 12˚00'E, about 7 miles NNW of the river entrance.
2. Vessels with drafts over 6.5m in position 54˚14.5'N, 12˚02.3'E (near Lighted Buoy No. 5), about 4 miles NW of the river entrance.
3. Vessels with drafts of 6.5m and less in position 54˚12.43'N, 12˚03.90'E (near Lighted Buoy No. 11 and Lighted Buoy No. 13 Lighted Buoy), about 1.7 miles NW of the river entrance.

Pilots disembark in the following positions:

a. 54˚12.90'N, 12˚04.91'E.
b. 54˚14.35'N, 12˚04.00'E.
c. 54˚17.20'N, 12˚02.50'E.

Inbound vessels should send their ETA 3 hours before arrival at the pilot boarding position, stating the following:

Designator	Information Required
A	Vessel name and call sign.
U	Length (in meters), beam (in decimeters), and grt.
H	ETA at pilot boarding position.
O	Draft (in decimeters).
I	Port of destination.

Regulations.—A Vessel Traffic Service (VTS) system operates in the approaches to Die Warnow. It is mandatory for the following:

1. Vessels 30m in length and over, including composite units.
2. Vessels carrying dangerous goods in bulk (gas, chemicals, petroleum, or petroleum products).
3. Unloaded tankers if not cleaned, degassed, or completely inerted after carrying petroleum or petroleum products with a flashpoint below 35˚C.
4. Nuclear-powered vessels.

The format for the Sailing Plan and Position Report is found in Kieler Forde in paragraph 3.63.

Vessels entering the VTS Area of Warnemunde/Rostock must maintain a continuous listening watch on VHF channel 73 or 16. It is mandatory to send the following reports:

1. Sailing Plan (SP)—An SP must be sent to VTS Center Warnemunde Traffic on VHF channel 73, as follows:
   a. Thirty minutes before entering the fairway for Warnemunde/Rostock.
   b. Before leaving a harbor or berth within the VTS Area of Warnemunde/Rostock.
2. Position Report (PR)—A PR must be sent to VTS Center Warnemunde Traffic on VHF channel 73, as follows:
   a. After embarking the pilot
   b. When leaving the fairway and after mooring.
   c. When turning in the Uberseehafen Turning Basin (beginning and completion of the turning maneuver).
   d. When passing Lighted Buoy No.1 and Lighted Buoy No.2 (about 5 miles NNW of the port entrance) or when entering the Warnemunde/Rostock fairway.
   e. When passing the moles (54˚ 11.1'N., 12˚ 05.4'E.); Berth No. 60 Warnowpier (54˚ 08.3'N., 12˚ 05.8'E.); and Marienehe Channel (54˚ 07.1'N., 12˚ 05.7'E.).
3. A Deviation Report (DR) must be sent in case of amendments to the SP.
4. An Incident Report (IR) must be sent in case of an incident impairing safety or the environment.

The format for the Sailing Plan and Position Report is found in Kieler Forde in paragraph 3.63.

Information broadcasts are made by VTS Warnemunde Traffic on VHF channel 73 in German (and on request, in English) on request and at 0115 and every 2 hours between 0515 and 2115. The broadcast includes information relevant to the safe passage through the VTS area and general traffic situation details including local storm warnings, weather, visibility, ice, casualties, and dredging operations.

Anchorage.—A designated anchorage area, which may best be seen on the chart, lies W of the approach channel. It is separated into two sections and marked by lighted buoys. Anchorage is available, in depths of 13 to 17m, mixed clay and sand with good holding ground, but this roadstead is exposed to winds from W through N to NE. The E section (No. 1) of this anchorage is for general vessels and the W section (No. 2) is for tankers and vessels with dangerous cargoes.

Caution.—The W breakwater at the river entrance is very low, only 1.5m above the mean water level. It covers during periods of high water and rough seas.

Ferries cross the channel at several places within the port and their routes may best be seen on the chart.

An abnormal magnetic disturbance has been observed in a position about 8 miles N of Warnemunde.

Prohibited areas, which may be best seen on the chart, lie E and W of the river entrance and extend up to about 1.3 miles seaward. These areas are for fishery protection and entry into them is not permitted between 1 March and 31 May.

A dumping ground area, which may best be seen on the chart, lies centered 1 mile offshore, 3.5 miles NE of the river entrance.

Submarine cables, which may best be seen on the chart, extends N from points on the shore located about 1.5 miles E and 1.9 miles ENE of the river entrance.

4.19 From Warnemunde, the E coast of Mecklenburger Bucht extends NE for 23 miles to Darsser Ort. With the exception of the steep cliffs N of Wustrow Light, this section of coast is generally low and flat. It is wooded except at Fischland. The coastal bank, with depths of less than 10m and large stones, extends up to about 3 miles seaward in places along this stretch, but extends less than 1 mile W of the shore in the vicinity of Darsser Ort.

A conspicuous water tower stands at Graal Muritz, about 6.8 miles NE of Warnemunde. Prominent chimneys, 46m and 54m high, are situated 0.4 mile NW and 0.3 mile W, respectively, of this tower.

Wustrow Light (54˚20'N., 12˚23'E.) is shown from a tower standing on the NW corner of a prominent building, 10m high.

Table of Contents

A conspicuous church and a wind-motor, 36m high, are situated close to this light.

Wustrow Light

Wustrow, a resort, is situated on Fischland, an area extending up to about 2 miles NE and SW of the light. This area is protected by groynes and consists of alternate dunes and hills.

A conspicuous radio mast, 103m high, stands about 3.5 miles NE of Wustrow Light.

Several wrecks lie along this stretch of the coast and may best be seen on the chart. A wreck, with a depth of 5m, lies about 1.5 miles offshore, 4.8 miles NE of Wustrow Light, and is marked by a lighted buoy.

Darsser Ort (54˚29'N., 12˚32'E.), a low and sandy point, is situated about 10 miles NE of Wustrow Light and backed by dunes and woods. A shallow harbor, used by small craft, is situated at the E side of the point.

Darsser Ort Light

The shorebank, with depths of less than 10m, extends up to about 4.5 miles N and NE of this point. Prerow Bank, with depths of less than 5m, lies on the shorebank, about 3 miles ENE of the point, and is marked by a lighted buoy.

A main light is shown from a prominent tower with a dwelling, 35m high, standing on the W side of the point. A conspicuous radio mast is situated close NNE of the light.

Tides—Currents.—Off Darsser Ort, in extreme cases, winds from NNW to ENE can raise the water level by up to 2.5m and winds from SE to W can lower it by as much as 1.6m.

Caution.—A submarine cable, which may best be seen on the chart, extends NW and then NE from the vicinity of Wustrow Light.

An area, within which anchoring and fishing are prohibited, lies centered 2.5 miles WNW of Wustrow Light and may best be seen on the chart.

4.20 Kadet Rinne (54˚27'N., 12˚15'E.), known to the Danes as Kadet Renden, lies about midway between Gedser Odde (see paragraph 4.6) and the coast extending SW of Darsser Ort. It is the deepest part of the channel leading SW and W into Mecklenburger Bucht. The main fairway is 1 to 3 miles wide and about 18 miles long.

Kadet Bank (54˚34'N., 12˚22'E.), with a least depth of 11m, lies centered about 7 miles NNW of Darsser Ort, close SE of the recommended track leading through Kadet Rinne.

Directions.—A Traffic Separation Scheme (TSS) is situated in Kadet Rinne and may best be seen on the chart.

For more information concerning this TSS and Route T, see paragraph 4.1.

Caution.—Traffic proceeding E in the southernmost lane of the TSS within Kadet Rinne should be aware that vessels bound for Warnemunde-Rostock (54˚11'N., 12˚05'E.) may be crossing this lane between Lighted Buoy No. E69 (54˚23.5'N., 12˚00.0'E.) and Lighted Buoy No. E70, 5.5 miles E.

Several submarine cables lie within Kadet Rinne and may best be seen on the chart.

Several wrecks, with swept depths, lie within Kadet Rinne and may best be seen on the chart.

German Coast—Darsser Ort to Kap Arkona

4.21 The **Zingst Peninsula** (54˚26'N., 12˚41'E.), a narrow strip of the mainland, extends E for about 16 miles from Darsser Ort to the prominent village of Pramort. Alternating sand dunes and pine forests back the low-lying shore and several islands lie close E of the E end of the peninsula. A series of interconnected and shallow bays extends W to Fischland along the inland side of the peninsula. The shorebank, with depths of less than 10m, extends up to about 4 miles seaward along this stretch of coast.

A conspicuous church stands at Prerow, 3.2 miles SE of Darsser Ort Light. A prominent chimney is situated at Zingst, 4.3 miles E of Prerow and a conspicuous church stands 0.5 mile W of it.

Plantagenet Grund (54˚38'N., 12˚48'E.), a group of shoal areas with depths of less than 10m, extends up to 10 miles offshore, N of the Zingst Peninsula. This group is marked on its N side by a lighted buoy moored about 15.5 miles NE of Darsser Ort Light.

A conspicuous tide gauge, 8m high and lighted, stands about 15 miles NNE of Darsser Ort and is marked by lighted buoys.

Der Bock (54˚27'N., 13˚00'E.), an extensive drying sand bank, extends E for about 5 miles from the E part of the Zingst Peninsula and almost reaches the S end of Hiddensee. Several

islands lie on this sandbank and the shorebank, with depths of less than 10m, extends up to about 8 miles N and NW of them.

4.22 Hiddensee (54˚33'N., 13˚07'E.), a narrow island, extends about 9 miles NNE. It lies across the entrance to the passage which leads between the mainland and Rugen. Several villages stand on this island which is generally low and sandy except at Dornbusch, at the N end, where it rises to a height of 72m and is faced with steep cliffs.

Dornbusch Light (54˚36'N., 13˚07'E.) is shown from a prominent tower, 27m high, standing near the highest point on the N part of Hiddensee.

Dornbusch Light

Gellen Light (54˚31'N., 13˚05'E.), a main sector light, is shown from a prominent tower, 12m high, standing on the W side of Hiddensee, 5.8 miles SSW of Dornbusch Light.

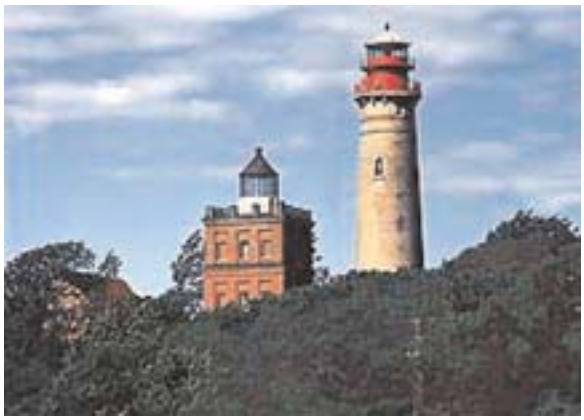
Gellen Light

Gellenstrom (54˚27'N., 13˚04'E.), a narrow passage leading to Stralsund, lies between the S end of Hiddensee and Der Boek.

Rugen (54˚41'N., 13˚26'E.) is a large and irregularly-shaped island of which Wittow, its N section, rises from low-lying land at the W side to a height of 45m at Kap Arkona, its N extremity. The W part of Wittow is generally wooded and the E part is barren with steep, chalk cliffs.

Der Bug, a low-lying peninsula, extends SW from Dranske, at the W end of Wittow, and forms the E shore of the passage leading between Hiddensee and Rugen.

Kap Arkona (54˚41'N., 13˚26'E.), the N extremity of Rugen, is a conspicuous headland consisting of chalk and barren cliffs, up to 46m high. A main light is shown from a prominent round tower, 35m high, standing on this headland. A disused square light tower is situated close SE of the light.



Kap Arkona Light

Foul ground, with several large rocks, extends up to about 0.5 mile E from the E extremity of the headland.

For a description of the waters to the E of Kap Arkona, see Sector 9.

To the S of the Zingst Peninsula and along the W shore of the N part of Rugen lie numerous interconnected, shallow, and irregularly formed bays and coves. Several small harbors and loading places are situated within this area, but local knowledge is required. The buoyed channels leading into and through this area have general depths of less than 3m.

Tides—Currents.—Within the waters in the vicinity of Rugen, winds from N to E can raise the water level by up to 1.2m and winds from S to W can lower it by the same amount.

Regulations.—Vessels transiting the waters N of Rugen must follow the designated recommended routes which are shown on the chart.

Caution.—In poor visibility, vessels are cautioned not to mistake the high land in the vicinity of Baken Berg (54˚41'N., 13˚21'E.) for Kap Arkona.

An area, within which anchoring and fishing are prohibited, extends up to 10 miles seaward of the coast of the Zingst Peninsula and may best be seen on the chart. This area is also used occasionally for military firing practice.

A small explosives dumping area, which may best be seen on the chart, lies close N of Plantagenet Grund, about 12.5 miles WNW of Dornbusch Light.

Nature reserve areas have been established in many places along the coast between Darsser Ort and Dornbusch. Entry into these areas is subject to numerous restrictions.

Several submarine cables lie in the waters to the N of the coast between Warnemunde and Kap Arkona and may best be seen on the chart.

Table of Contents

Stralsund (54˚19'N., 13˚06'E.)

World Port Index No. 28848

4.23 The port of Stralsund is situated on the mainland, 8.5 miles S of the S end of Hiddensee. The port can be approached from the E through Greifswalder Bodden and from the N via channels passing E and W of Hiddensee. Entry through Greifswalder Bodden, the principal approach, is described beginning in paragraph 9.7.

Ice.—Ice may appear as early as November in the inner waters and remain until the first day of April. In average winters, the ice season lasts from the middle of December until early March. Winds from the N drive floe ice from the open sea into the entrances of both the N and the E approach channels. Heavy concentrations of ice may hinder shipping and at times close the port. Generally, Stralsund is closed for 27 days annually by ice, but the port has been closed for up to 99 days during very severe winters. Icebreakers maintain a channel from Greifswalder Bodden for as long as possible.

Tide—Currents.—In Gellenstrom, winds from N to E can raise the water level by up to 1m and winds from S to W can lower it by as much as 0.4m. During very severe storms, when flooding occurs, the water level may rise by up to 2m and fall by as much as 1m. The maximum recorded variations are 2.7m above and 1.2m below the mean water level.

In the main N approach channel to Stralsund, the current sets S with winds from W through N to ENE and sets N with winds from E through S to WSW. With light breezes, the current may change direction several times during one day. Gales from NE, NW, SW, or SE cause the strongest currents.

Aspect.—An outer approach lighted buoy (Gellen) is moored about 2 miles W of Dornbusch Light. The approach channel is marked by buoys and indicated by lighted ranges.

A conspicuous radio mast, 56m high, stands on the mainland at Barhoft, about 5 miles SSW of Gellen Light. A prominent watch tower, 53m high, is situated 0.3 mile NNW of this mast near the steeply falling shore.

A conspicuous large building stands at the shipyard in the S part of the port.

Stralsund

Depths—Limitations.—The inner passage from N leading E of Hiddensee has a controlling depth of only 2.5m. The approach channel leading W of Hiddensee and through Gellenstrom has a controlling depth of 4.5m and is 60m wide. It can generally be used by vessels up to 95m in length, 13m beam, and 3.7m draft. Both channel are subject to silting.

The channels leading from E through Greifswalder Bodden (see paragraph 9.7) can generally be used by vessels up to 120m in length, 17.5m beam, and 5.2m draft. However, with permission from the port authorities, larger vessels with drafts up to 6m can proceed to Stralsund.

Several breakwaters and the island of Danholm protect the N part of the port area. Rugendamm, a dam, connects Rugen with the mainland at Stralsund. It runs in a NE direction across the NW part of the island of Danholm and carries both a road and a railway.

The N section of the dam, which crosses the fairway channel NE of Danholm, consists of several fixed bridges. It provides two openings for traffic, which have a navigable width of 50m and a vertical clearance of 8m. The S section of the dam, which extends between the port and the island, provides three openings. The E and W openings are 50m wide and are spanned by two fixed bridges with vertical clearances of 6m. The central opening is spanned by two bascule lift bridges, which have a navigable width of 24.5m and a vertical clearance of 6m when closed. One bascule bridge carries the road and the other carries the railway so that both bridges must be raised for vessels to pass.

Two power cables, with a vertical clearance of 42m, span the fairway channel in the vicinity of the port.

The harbor fronts the town and has about 1,830m of total quayage, providing nineteen berths with depths of 6 to 6.6m alongside. A shipyard is situated in the S part of the port and a basin used by fishing vessels lies at the SW side of Danholm. There are facilities for general cargo, bulk, passenger, ferry, and ro-ro vessels. Vessels up to 150m in length, 22m beam, and 5.2m draft can be accommodated. However, vessels with drafts up to 6m can enter with special permission.

Pilotage.—Pilotage is compulsory for the following:

1. Tankers carrying gas, chemicals, petroleum, or petroleum products.
2. Unloaded tankers, if not cleaned, degassed, or completely inerted after having carried petroleum or petroleum products with a flashpoint below 35 C.
3. Stralsund Northern Approach—Other vessels over 300 grt, over 55m in length, or over 8m beam.
4. Stralsund Eastern Approach—Other vessels over 500 grt, over 70m in length, or over 11m beam.

Inbound vessels should send an ETA and a request for pilotage 6 hours prior to their arrival at the pilot boarding position. The message should state the following information:

Designator	Information Required
A	Vessel name and call sign.
U	Length (in meters), beam (in decimeters), and grt.
F	Speed (knots).
H	ETA at pilot boarding position.
O	Draft (in decimeters).

Designator	Information Required
I	Port of destination.

Pilots can be contacted by VHF and board, as follows:

1. Stralsund Northern Approach—in the vicinity of Lighted Buoy No. 1 (54˚ 34'N., 13˚ 03'E.).
2. Stralsund Eastern Approach (Sassnitz, Mukran, and Wolgast)—in the vicinity of Landtief B Lighted Buoy (54˚ 17'N., 13˚ 46'E.) or Osttief 2 (02) Lighted Buoy (54 ˚12'N., 13˚ 52'E.).

Pilots will board at the following positions if requested by vessels on VHF channel 12:

1. Sassnitz—in the vicinity of Sassnitz Lighted Buoy (54 ˚33'N., 13˚ 46'E.).
2. Mukran—in the vicinity of Mukran Lighted Buoy (54 ˚26'N., 13 ˚43'E.).

Regulations.—A Vessel Traffic Service (VTS) system operates in the approaches to Rugen and is mandatory for the following:

1. Vessels of 20m in length and over, including composite units.
2. Vessels carrying dangerous goods in bulk (gas, chemicals, petroleum, or petroleum products).
3. Unloaded tankers if not cleaned, degassed, or completely inerted after carrying petroleum or petroleum products with a flashpoint below 35˚C.
4. Nuclear-powered vessels.

Vessels entering the VTS Area of Stralsund North must maintain a continuous listening watch on VHF channel 16 or 67. It is mandatory for vessels to send the following reports:

1. Sailing Plan (SP)—An SP must be sent to VTS Center Stralsund Traffic on VHF channel 67, as follows:
   a. When entering the VTS Area from seaward 30 minutes before passing Gellen Lighted Buoy (54˚36'N., 13˚04'E.).
   b. Before leaving a harbor or berth within the VTS Area of Stralsund North.
2. Position Report (PR)—A PR must be sent to VTS Center Stralsund Traffic on VHF channel 67, as follows:
   a. After embarking the pilot.
   b. When leaving the fairway.
   c. When entering or leaving an anchorage or berth within the VTS Area of Stralsund North.
   d. When passing Gellen Lighted Buoy, Lighted Buoy No. 30 (54˚ 26'N., 13˚ 02'E.), and Buoy No. 48 (54˚ 20'N., 13˚ 07'E.).
3. A Deviation report (DR) must be sent in case of amendments to the SP.
4. An Incident Report (IR) must be sent in case of an incident impairing safety or the environment.

For the format for the SP and PR, see Regulations for Kieler Forde in paragraph 3.63.

Vessels entering the VTS Area of Stralsund East must maintain a continuous listening watch on VHF channel 16 or 67. It is mandatory for vessels to send the following reports:

1. Sailing Plan (SP)—An SP must be sent to VTS Center Stralsund Traffic on VHF channel 67, as follows:
   a. When entering the VTS Area from seaward 30 minutes before passing Landtief B Lighted Buoy (54˚17'N., 13˚46'E.).
   b. Before leaving a harbor or berth within the VTS Area of Stralsund East.
2. Position Report (PR)—A PR must be sent to VTS Center Stralsund Traffic on VHF channel 67, as follows:
   a. After embarking the pilot.
   b. When leaving the fairway.
   c. When entering or leaving an anchorage or berth within the VTS Area of Stralsund East.
   d. When passing the following reporting points:
      i. Landtief Channel—Landtief B Lighted Buoy and Lighted Buoy No. L14 (54˚12'N., 13˚39'E.).
      ii. Osttief Channel—Osttief Lighted Buoy (54˚13'N., 14˚00'E.), Lighted Buoy No. O30 (54˚12'N., 13˚43'E.), and Lighted Buoy No. PN12 (54˚08'N., 13˚45'E.).
      iii. Palmer-Ort-Rinne Channel to Stralsund—Lighted Buoy No. 1 and Lighted Buoy No. 2 (54˚12'N., 13˚27'E.), Lighted Buoy No. 1 and Lighted Buoy No. 13 (54˚14'N., 13˚20'E.), and Lighted Buoy No. 32 (54˚17'N., 13˚06'E.).
3. A Deviation Report (DR) must be sent in case of amendments to the SP.
4. An Incident Report (IR) must be sent in case of an incident impairing safety or the environment.

For the format for the SP and PR, see Regulations for Kieler Forde in paragraph 3.63.

Information broadcasts are made by VTS Stralsund Traffic on VHF channel 67 in German (and on request, in English) on request and at 0235 and every 2 hours between 0635 and 2235. The broadcast includes information relevant to the safe passage through the VTS area and general traffic situation details including local storm warnings, weather, visibility, ice, casualties, and dredging operations.

Speed is limited to a maximum of 10 knots in the approach channel and 4 knots in the vicinity of the harbor. The maximum size of vessels allowed to enter is reduced during darkness and in periods of poor visibility.

Vessels departing the port have the right of way in the fairway over vessels entering.

Directions.—Vessels from the N must follow the designated recommended route, which is indicated on the chart. This route leads SE toward the outer approach lighted buoy (Gellen), which is moored about 2 miles W of Dornbusch Light. The track then leads S for 4 miles, in the white sector of Gellen Light, to the seaward entrance of the approach channel. The channel leads SSW and SSE along the W side of Hiddensee and through Gellenstrom. The entrance fairway then continues SE and S for about 8 miles to the port.

Caution.—Numerous fishing boats, nets, and traps may be encountered in the waters off Rugen.

The channels leading to Stralsund are subject to silting and the autthorities should be contacted for the latest information concerning dredged depths and maximum allowable drafts.

Table of Contents

Danish Coast—Gedser Odde to Mon Light

4.24 **Gedser Odde** (54˚34'N., 11˚58'E.) has been previously described in paragraph 4.6. This point, the S extremity of Falster, is fronted by low cliffs. A dike protects the low-lying E coast of Falster which extends N from Gedser Odde for about 10 miles. A high bank, 2 miles long and formed of clay, extends N from the end of the dike and then the coast becomes wooded, with steep bluffs, as far as Hestehoved. A prominent church stands at Gedesby, 2.5 miles NNW Gedser Odde.

The shore bank along this stretch, with a depth of less than 10m, extends up to about 4 miles seaward in places.

Hestehoved (54˚50'N., 12˚10'E.) is the E extremity of Falster and also the SE entrance point of Gronsund. A light is shown from a dwelling, 4m high, standing on this headland.

Hesnaes, a small harbor, lies 1.2 miles SW of the headland and is used by fishing vessels. It is protected by breakwaters which form an entrance, 25m wide. The harbor basin has a controlling depth of 3.1m, but is subject to silting. A conspicuous chimney stands in the vicinity of this harbor.

Gronsund (54˚50'N., 12˚10'E.), a passage leading to Smalandsfarvandet, is entered between Hestehoved and Madses Klint, 3 miles NNE. The entrance is encumbered by Tolken, a steep-to and shallow shoal area formed of shifting sands, which extends up to 3 miles offshore. This passage is fully described in paragraph 2.56.

Madses Klint (54˚53'N., 12˚12'E.), the NE entrance point of Gronsund, is formed by a small, yellow cliff, 22m high. Hjelm Klint, located 4 miles NE of Madses Klint, is a prominent white cliff and Hjelm Mill, a conspicuous landmark, stands 1mile SW of it.

Hjelm Bugt, a bight, indents the S coast of Mon between Madses Klint and Mon Light, about 12 miles ENE. With offshore winds, vessels can anchor as convenient within this bight, over mainly sandy bottom.

Mon Light (54˚57'N., 12˚33'E.) is described in paragraph. 1.33. Bjelkes Flak, a rocky shoal with depths of less than 7m, extends up to about 1.8 miles S of Mon Light.

A group of remarkable white chalk cliffs stand along the E end of Mon and are conspicuous from a considerable distance to seaward.

Klintholm, a small harbor, lies 2.5 miles W of Mon Light and is used by fishing vessels and pleasure craft. The entrance is 30m wide and has a controlling depth of 3m. A prominent church stands at Magleby, 2 miles NNE of this harbor.

Caution.—The depths within the waters lying between Gedser Odde and Mon Light are rather irregular. Seaward of the 10m curve, the depths increase to 26m, but general depths are less than 18m.

Survey equipment, marked by buoys, is frequently moored off the coast between Gedser Odde and Mon Light, especially within Hjelm Bugt.

Swedish Coast—Falsterbo Udde Light to Torhamnsudde

4.25 The **Skanor Peninsula** (Falsterboudde) (55˚23'N., 12˚49'E.) forms the low SW extremity of Sweden. The coast extending 18 miles ESE from this point to Smygehuk, the S extremity of Sweden, is mostly low and fronted by sandy beaches. The shore is partly wooded and partly bare.

Falsterbo Udde Light (55˚23'N., 12˚49'E.), marking the SE end of The Sound, stands near the SW extremity of the Skanor Peninsula and is fully described in paragraph 1.23.

Falsterborev (55˚20'N., 12˚50'E.) extends up to about 6 miles SW and 5 miles S of the SW end of the Skanor Peninsula and may best be seen on the chart. This extensive reef is formed of sand and gravel. It has depths of less than 2m and is marked by buoys. Maklappen, a low and sandy islet, lies on the reef, 1.3 miles S of Falsterbo Udde Light.

Falsterborev Light (55˚19'N., 12˚38'E.), equipped with a racon, is shown from a prominent floodlit tower, 30m high with a helicopter platform, standing 7 miles SW of Falsterbo Udde Light.

Falsterborev Light

Blenheim Lighted Buoy (55˚16'N., 12˚53'E.), equipped with a racon, is moored about 6.7 miles SSE of Falsterbo Udde Light. It marks the S end of Blenheimgrund, which has a least depth of 7.4m and is the southernmost shoal lying in this vicinity. Several dangerous wrecks lie on this shoal.

A dangerous wreck lies about 3.2 miles SW of Blenheim Lighted Buoy and is marked by two lighted buoys. The northernmost lighted buoy is equipped with a racon.

Kriegers Flak (55˚02'N., 13˚02'E.), an off-lying bank, lies centered 20 miles SE of Falsterborev Light. It is formed of sand and stones and has a least depth of 15m. Several wrecks, with depths of 11.7m to 17.5m, lie in the vicinity of this bank and may best be seen on the chart.

Skare (55˚22'N., 13˚03'E.), a small harbor, is situated on the mainland 8 miles E of Falsterbo Udde Light. It is used by fishing vessels and pleasure craft. The entrance is 14m wide and has a controlling depth of 2m.

A church, with a prominent steeple, stands at Maglarp, 1.2 miles NE of Skare. A prominent radio mast, 136m high, is situated 0.7 mile W of this church.

Return to paragraph: 1.23

A prominent monument stands on Stavstensudde, a point located about 1 mile SE of Skare. A shoal, with depths of less than 5m, extends up to about 1.5 miles SSE of this point and is marked by buoys.

4.26 **Trelleborg Light** (55˚21'N., 13˚09'E.), equipped with a racon, is shown from a prominent floodlit tower, 15m high, standing 0.6 mile offshore, about 3.5 miles ESE of Skare.

Trelleborg Light

For details of the waters lying W of Falsterbo Udde Light and The Sound, see paragraph 1.23.

Directions.—An IMO-adopted Traffic Separation Scheme (TSS) is situated in the vicinity of Falsterborev Light, in the S entrance to The Sound, and may best be seen on the chart.

A circular traffic route is centered on the light and traffic lanes extend N, S, and ESE from its vicinity. An inshore traffic zone is located E and N of the main traffic lanes.

Lighted Buoy M41 is moored about 5 miles WNW of Falsterbo Udde Light and marks the N end of the TSS. Lighted Buoy M42 and Lighted Buoy M43 are moored about 2 miles and 8 miles, respectively, ESE of Falsterborev Light and mark the easternmost traffic separation zone.

The main route into the Baltic Sea follows the ESE traffic lane and passes S of the entrance to Trelleborg (55˚22'N., 13˚09'E.). The main route leading toward Kadet Rinne follows the S traffic lane and passes E of Mon Light. The main route leading to the S entrances of the Drogden and Flintrannan channels follows the N traffic lane.

Caution.—Numerous wrecks, which may best be seen on the chart, lie in the S approaches to The Sound and in the vicinity of the TSS.

Several submarine cables lie in the S approaches to The Sound and three submarine cables extend S from the mainland in the vicinity of Skare. These cables may best be seen on the chart.

A large danger area, the limits of which are shown on the chart, lies across the S approaches to The Sound. It extends 24 miles SW from a position located 5 miles SE of Falsterbo Udde Light. Anchoring, fishing, and seabed activities are prohibited within this area due to the residual danger of bottom mines.

A danger area, which may best be seen on the chart, lies centered 13 miles SE of Blenheim Lighted Buoy. Anchoring, fishing, and seabed activities are prohibited within this area due to the residual danger of bottom mines.

During heavy winter gales, the sea level off the S coast of Sweden may vary by as much as 0.9m.

A restricted nature area, which may best be seen on the chart, lies in the vicinity of Maklappen. The islet is a bird sanctuary and entry into the area is prohibited without permission.

4.27 **Falsterbo Kanal** (55˚24'N., 12˚57'E.) has been cut across Falsterbonaset, the inner part of the Skanor Peninsula. This canal extends about 1 mile NW from Kampingebukten, in the W part of the Baltic Sea, to Hollviken, in The Sound. It shortens the passage between Flintrannan and the Baltic Sea by 16 miles.

Kampingebukten Lighted Buoy is moored about 3 miles SE of the S entrance. A dredged approach channel, 100m wide, leads NW from the vicinity of this buoy to the canal entrance, which is protected by two breakwaters. The fairway is indicated by a lighted range and has a least depth of 7m.

The canal is 40m wide and 5.6m deep. It can be used by vessels up to 15,000 dwt, 20m beam, and 5m draft.

The canal can be navigated both by day and at night, except when the difference in the water level between Hollviken and Kampingebukten exceeds 1m. A lock, 0.5 mile long, has been constructed in the canal and maintains an equal water level whereby vessels can normally transit the canal at any time without interruption.

Hollviksbron Bridge, a road and rail bascule bridge, spans the canal near the N entrance and has a navigable width of 25m. The bascule has a vertical clearance of 3.9m when closed. Usually, rail traffic across the bridge has priority over marine traffic through the canal.

A dredged channel, with a least depth of 5.6m, leads SE into the N entrance. For details of the N approach to the canal, see paragraph 1.24.

Pilotage.—Pilotage is available and recommended for vessels without local knowledge. Pilots are provided by the main pilot station at Malmo. They can be contacted by VHF and board off Malmo or Trelleborg. Vessels must communicate on VHF channel 73 with the canal control tower at Hollviksbron and maintain a continuous listening watch. Information concerning water levels and traffic in the canal is available on VHF from the control center and requests for bridge opening can be made.

The conventional direction of buoyage in the approach channel leading to the S entrance of the canal is N to S.

Special regulations are in force within the approaches and the canal and should be obtained from the local authorities prior to transit.

Trelleborg (55˚22'N., 13˚09'E.)

World Port Index No. 24250

4.28 The port of Trelleborg, a ferry terminal, is situated about 11.5 miles E of Falsterbo Udde Light.

Winds—Weather.—Although the harbor is unprotected from S and SW winds, there is no sea or suction felt because of the shallow water lying in the approaches. A comparatively

smooth sea prevails during onshore winds, but NW and SW gales sometimes cause an extensive lowering of the water level.

Ice.—Inclement weather or ice seldom hinders traffic proceeding in or out of the harbor.

Depths—Limitations.—The shorebank, with depths of less than 5m, extends up to about 1.6 miles seaward in the vicinity of the port. An approach channel, dredged to a depth of 8.4m over a bottom width of 100m, leads NNE from close W of Trelleborg Light.

The harbor is entered between two breakwaters, which form an entrance, 130m wide. It is divided into three main basins.

Nyhamnen, the New Harbor, lies at the W side of the port and has a depth of 8m. It provides a quay, 455m long, on the N side and an oil berth, 220m long, on the S side. A quay located at the S side of the inner part of this basin is used by fishing vessels. Centralhamnen, in the N part of the port, is divided into two basins by Hamnbron, a short pier. A quay, 275m long, is located at the W side of Centralhamnen and has a depth of 8m alongside. Ferry berths, with depths of 8m alongside, are situated in the outer part of the E section of Centralhamnen and at both sides of the pier. There are also seven ro-ro berths in the port with depths of 6.5 to 8m alongside. Generally, vessels up to 15,000 dwt and 7.6m draft can be accommodated.

Aspect.—Trelleborg Redd Lighted Buoy marks the outer entrance of the approach channel and is moored about 1.5 miles SSW of Trelleborg Light. The approach fairway is marked by buoys and indicated, along its edges, by lighted ranges.

A church, with a prominent stepped gabled, a green silo, and a group of cistern tanks are situated on the W side of the harbor. A group of prominent chimneys, one of which is 65m high, and a gray silo are situated on the E side of the harbor. A prominent water tower stands in the town and a radar mast, 42m high, is situated close W of it. Another prominent water tower is situated about 1 mile NNE of the town.

A conspicuous radio mast, 130m high, stands 2 miles NE of the harbor entrance.

Trelleborg

Pilotage.—All ordering of pilots in the Oresund Maritime Area (see paragraph 1.18) must be made through Malmo VTS. Vessels should send a request for pilotage and an ETA at least 5 hours in advance. Requests for deep-sea pilots for The Sound should be sent at least 24 hours in advance.

The pilot station at Trelleborg provides local pilots and coastal pilots for The Sound, Store Baelt, Kiel-Holtenau, and other ports in the Baltic Sea. Harbor pilots can be contacted by VHF and generally board in the vicinity of Trelleborg Redd Lighted Buoy.

Regulations.—A Vessel Traffic Service (VTS) system has been established in the port. All merchant vessels arriving or departing must announce their intentions and their vessel name to Trelleborg VTS, as follows:

1. Inbound vessels, on VHF channel 74, should give a first announcement 5 minutes before arriving at Trelleborg Redd Lighted Buoy (55˚20'N., 13˚08'E.). Such vessels should also give a second announcement upon arrival at the buoy. Inbound traffic has the right of way over departing traffic, unless another agreement has been made.
2. Outbound vessels, on VHF channel 74, should announce their intention to depart. When such vessels have announced their departure, inbound traffic must await outbound traffic, unless another agreement has been made. The VTS center will help any outbound vessels with limited radar range, concerning the movements of other vessels.
3. All fishing vessels and other small craft with the intentions of entering the port should announce, on VHF channel 74, their arrival 20 minutes before passing the outer breakwater heads. Their departure should also be announced.
4. The VTS center can also be reached by telephone. Any communications with the center should preferably be spoken in English.

Signals.—Fixed green and yellow lights are shown from the E inner pierhead when ferries are entering or departing.

Anchorage.—With offshore winds, anchorage can be taken, in depths of 7 to 12m, clay mixed with sand and stones, to the W of the track leading between Trelleborg Redd Lighted Buoy and Lighted Buoy No. 1 , marking the seaward entrance of the dredged channel.

Directions.—Vessels from SW should proceed ENE for 5 miles, using the white sector of Trelleborg Light, to the vicinity of Trelleborg Redd Lighted Buoy. Vessels from SE should proceed WNW for 7 miles, using the white sector of Trelleborg Light, to the vicinity of Trelleborg Redd Lighted Buoy. Vessels should then steer NNE for 1.5 miles to the seaward entrance of the dredged approach channel, which is situated close W of Trelleborg Light.

Caution.—Due to numerous dangers lying in the approaches, vessels without local knowledge are advised not to deviate from the designated dredged fairway.

4.29 Smygehuk (55˚20'N., 13˚21'E.), the S extremity of Sweden, is located 7 miles ESE of Trelleborg. The coast between is low and partly wooded. A light is shown from a prominent tower, 17m high, standing on this point.

Gislov, a small harbor, lies 2.7 miles ESE of Trelleborg and is used by fishing vessels and pleasure craft. The entrance faces SSW and has a controlling depth of 2.8m. A conspicuous church, with a steep gable, is situated at Dalkopinge, 0.8 mile WSW of this harbor.

Smygehamn, a small harbor, lies close E of Smygehuk and is used by fishing vessels and pleasure craft. The entrance faces S and has a controlling depth of 2m.

It is reported that a prominent radio mast, 147m high, stands about 4 miles inland, 5 miles NE of Trelleborg.

Romeleasen (Romeleklint), a hill, stands 18 miles NE of Trelleborg. It is 186m high and is reported to be very conspicuous, especially from the S. The hill has two mounds, the E one being the higher, and joins a lower range of hills which are blue in appearance.

Kullagrund Light (55˚18'N., 13˚20'E.), equipped with a racon, is shown from a prominent floodlit tower, 20m high, standing 2.5 miles SSW of Smygehuk.

Kullagrunden, a group of shoals with depths of less than 4m, extends up to about 2 miles from the coast, NW of Kullagrund Light, and is marked by a buoy.

The coast trends 29 miles E from Smygehuk to Sandhammaren and recedes to form a bight with the port of Ystad situated at its head. A conspicuous warehouse and a prominent church stand near Ostra Klagstorp, 3.5 miles NNE of Smygehuk.

Abbekas (55˚23'N., 13˚36'E.), a small and shallow fishing harbor, is situated 8.5 miles ENE of Smygehuk. The town standing behind the harbor is relatively large and can easily be identified as the coast is low. A prominent castle, with two towers, stands 5.5 miles NE of the town. A conspicuous church is situated at Balkakra, 0.5 mile S of this castle.

Caution.—The water level along this part of the coast is unusual in that it falls rapidly with an onshore wind and rises rapidly with an offshore wind. Storms from the NW are reported to cause strong onshore currents.

Extensive drift net fishing is conducted off this part of the coast between Trelleborg and Sandhammaren. Vessels should exercise caution in order to prevent net damage.

Eel bottom nets, which may be either secured to piles on the seabed or moored to floats, may be laid up to 1.5 miles offshore from May to December. Vessels are advised not to approach within 1.5 miles of this stretch of coast without local knowledge.

A danger area, the limits of which are shown on the chart, lies centered 22 miles S of Smygehuk. Anchoring, fishing, and seabed activities are prohibited within this area due to the residual danger of bottom mines.

Ystad (55˚26'N., 13˚50'E.)

World Port Index No. 24260

4.30 The commercial port of Ystad lies at the head of a broad, open bight and steep bluffs are located in its vicinity.

Winds—Weather.—Although the harbor is sheltered, S and SW gales sometimes raise a heavy sea outside the entrance. The greatest difference between the mean and low water levels is 1m, with the normal level varying up to 0.6m.

Ice.—During a normal winter, ice offers no impediment to navigation in the harbor. If necessary, an icebreaker will render assistance.

Depths—Limitations.—A reef, with a least depth of 5.5m, fronts the shore at the W side of the harbor. Foul ground, with depths of less than 5m, extends up to about 1.2 miles S and 1 mile SW of Revnabben, a point located 0.5 mile ESE of the harbor entrance. Klostergrund, a rocky shoal, lies about 1.5 miles S of Revnabben and has a least depth of 6m.

Vessels should steer NE toward the outer approach lighted buoy and then enter the main approach channel. This channel leads in a NE direction through the off-lying dangers and has a controlling depth of 7.2m. The harbor is protected by two inner breakwaters, which form an entrance 150m wide, and two detached breakwaters, located 0.4 mile seaward. A basin for pleasure craft and fishing boats is situated at the W side of the harbor.

The main harbor basin provides 1,100m of total quayage with depths of 5 to 7.2m alongside. There are facilities for general cargo, passenger, bulk, ro-ro, and ferry vessels. Vessels of up to 150m in length, 20m beam, and 6.8m draft can be accommodated.

Aspect.—An outer approach lighted buoy is moored about 1.5 miles SW of the harbor entrance. The main entrance fairway leads in a NE direction and is indicated by a lighted range. The seaward edges of the shoal areas lying in the approaches are marked by a buoys.

A large green silo stands on the W mole and is prominent. A church, a water tower, and several silos stand in the town and are prominent. A tall and conspicuous chimney stands at a sugar mill, 4.5 miles ENE of the harbor.

Pilotage.—All ordering of pilots in the Oresund Maritime Area (see paragraph 1.18) must be made through Malmo VTS. Vessels should send a request for pilotage and an ETA at least 5 hours in advance. Local pilots can be contacted by VHF and generally board in the vicinity of the outer approach lighted buoy. Vessels should send an ETA to the port authority 24 hours in advance stating their name, length, draft, and if tugs are required.

Anchorage.—Anchorage can be taken within Spanska Redden, an area lying 1.5 miles SSW of the harbor entrance. This roadstead has depths of 14 to 16m and consists of sand, clay, and stones. It has good holding ground, but is exposed to S gales.

Caution.—Submarine cables, which may best be seen on the chart, extend SW and SE from a point on the shore close W of Ystad.

4.31 Kasehuvud (55˚23'N., 14˚03'W.), a high and bare flat-topped headland, slopes steeply seaward and dominates the landscape 8 miles ESE of Ystad. The coast between this headland and Sandhammaren, 5 miles ESE, is unindented. The shore is fringed by a sandy bank and fronted by several shoals.

A conspicuous tall chimney stands 4.5 miles ENE of Ystad.

Anchorage can be taken, in depths of 9 to 16m, good holding ground of sand and clay, between Ystad and Kasehuvud. Vessels are advised to anchor closer to the headland than the town. The headland and adjoining hills protect this roadstead from NE winds.

Kaseberga, small and shallow fishing boat harbor, is situated close E of Kasehuvud and is formed by two breakwaters.

Sandhammaren (55˚23'N., 14˚12'E.), a low and sandy point, is the SE extremity of Sweden. A main light is shown from a prominent tower, 29m high, standing on the point and a conspicuous radio mast is situated 0.8 mile NNW of it.

Table of Contents

Sandhammaren Light

Svartgrund (55˚14'N., 14˚15'E.), a detached bank, lies about 9 miles S of Sandhammaren. It has a least depth of 14m and is marked by a lighted buoy. During gales, seas are reported to break heavily on this bank. An isolated shoal patch, with a depth of 10.2m, lies about 4 miles WNW of the bank.

Caution.—The water level in the vicinity of Sandhammaren falls rapidly with an onshore wind and rises rapidly with an offshore wind.

Stormy weather, especially from the NE, may cause variable depths within the 20m curve. Storms from the SW usually cause strong onshore currents. Large vessels are advised to stay at least 7 miles offshore when passing Sandhammaren.

Several wrecks, some dangerous, lie in the waters to the S of Kasehuvud and Sandhammaren and may best be seen on the chart.

4.32 The coast turns abruptly NNE from Sandhammaren and increases in height. The land is more wooded and several churches, standing along the shore, are visible from seaward. A prominent church, with a tower, is situated inland at Borrby, 4.5 miles N of Sandhammaren.

Ornhokaknosen (55˚26'N., 14˚16'E.) lies about 1.2 miles offshore, 3.5 miles NE of Sandhammaren Light. This shoal has a least depth of 10.2m and choppy seas break over it.

Skillinge (55˚28'N., 14˚17'E.), a small harbor, lies 6 miles NNE of Sandhammaren. It is used by fishing boats and small craft. The entrance channel leads WNW and has a controlling depth of 4.5m. It is marked at the seaward end by a lighted buoy and indicated by a lighted range.

A prominent windmill is situated on the N side of the town, 0.2 mile NW of the harbor. A conspicuous radio mast and a prominent church stand 1.7 miles NW and 1.8 miles W, respectively, of the harbor.

Anchorage can be taken, in depths of 12 to 15m, sand and clay with good holding ground, about 1 mile off Skillinge. Vessels can also anchor, in a depth of 25m, about 2 miles off Skillinge. This roadstead has good holding ground during W gales.

Brantevik, a small harbor, lies 3.5 miles NE of Skillinge and is used by fishing boats. It is protected by two breakwaters and has a controlling depth of 3m. It can easily be recognized by a windmill and a church, both conspicuous, standing in the town.

A prominent church, with a spire, is situated at Ostra Nobbelov, 1.5 miles W of Brantevik.

Langagrund (55˚32'N., 14˚29'E.), a detached shoal, lies about 4.5 miles offshore, 8 miles NE of Skillinge. It has a least depth of 5m and is marked by a lighted buoy.

Caution.—Submarine power cables, which may best be seen on the chart, extend SE from a point on the shore about 3 miles SSW of Skillinge.

4.33 Simrishamn (55˚33'N., 14˚22'E.) (World Port Index No. 24280), a small commercial harbor, is situated 2.5 miles N of Brantevik and is protected by two breakwaters. It is a major fishing center and also has facilities for pleasure craft.

Winds—Weather.—The harbor is exposed to strong E winds which sometimes cause a heavy swell to set into the outer part. Entry should not be attempted during such times. During W gales, the water level usually falls by as much as 1.1m below mean sea level.

Ice.—The harbor is usually ice free, but it may form off the entrance in January and February during severe winters. An icebreaker is available.

Tides—Currents.—Winds of gale force cause the usually weak currents outside the harbor to attain rates of up to 2 knots. Gales from the E and SE cause a current to set into the harbor entrance.

Depths—Limitations.—An approach channel leads WSW through the off-lying dangers to the harbor. Nedjan, a shoal patch, lies about 1.2 miles ENE of the main light. It has a least depth of 2.7m and is marked at the E side by a lighted buoy. The fairway, which has a least depth of 6m, passes SSE of Nedjan. The entrance, between the two outer breakwaters, is 50m wide. The outer basin has a single berth, 100m long, with a depth of 5m alongside. The inner basin has 400m of total quayage with depths of 5 to 5.5m alongside. The fishing basin provides 470m of total quayage with a depth of 5m alongside. Small vessels with drafts up to 4.5m can be accommodated.

Aspect.—The approach channel is marked by buoys and indicated by a lighted range. A main light is shown from a tower, 15m high, standing close S of the harbor entrance.

A prominent church, with a low tower, is situated in the town. A conspicuous windmill, with sails, and a conspicuous chimney stand 0.7 mile WSW and 0.5 mile SW, respectively, of the S outer breakwater head. A prominent radio mast is situated 2.3 miles NW of the harbor.

Pilotage.—Pilots are provided by the station at Ahus. However, all ordering of pilots must be made through Malmo VTS. For details of compulsory pilotage in this area, see Karlshamn in paragraph 4.40. Vessels must send an ETA and request for pilotage 5 hours prior to arrival. Pilots can be contacted by VHF and generally board off the seaward entrance to the approach channel.

Anchorage.—Anchorage can be taken, in depths of 12 to 15m, sand and clay with good holding ground, to the N of the harbor. Anchorage is also available, in a depth of 25m, sand and clay, to the SE of the harbor.

Caution.—When strong E winds prevail, it is dangerous for vessels to attempt entry.

An outfall pipeline extends seaward from a point on the shore located 1.5 miles S of the harbor. The landing place is marked by lighted beacons.

4.34 Baskemolla (55˚36'N., 14˚19'E.), a small fishing harbor, lies 2.5 miles NNW of Simrishamn. It is formed by a breakwater and a jetty. The entrance, which faces N, is 15m wide and has a controlling depth of 2.5m.

Vik, a small and shallow fishing boat harbor, lies 1.5 miles NNW of Baskemolla.

Stenshuvud (55˚40'N., 14˚17'E.), a conspicuous sloping promontory, is located 7 miles NNW of Simrishamn. It is 96m high and wooded. Inland, the rising terrain is interspersed by wooded hills. A main light is shown from a prominent tower, 9m high, standing on this promontory.

A prominent church, with a windmill standing close N of it, is situated on high ground, 2 miles W of the light. A prominent radio mast, 110m high, stands at an elevation of 285m about 4 miles W of the light.

It is reported (2001) that a conspicuous aeronautical light is situated about 11 miles WNW of Stenshuved Light.

Hanobukten (55˚58'N., 14˚35'E.), an extensive bay, lies between Stenshuvud and Listershuvud, a salient point located about 28 miles NE. It is open to E winds, which can raise a considerable sea, and contains the ports of Ahus and Solvesborg.

Kivik, a small harbor, lies 2.3 miles NW of Stenshuvud and is used by fishing boats and pleasure craft. It is formed by two moles and has a controlling depth of 3m. Anchorage can be taken, with offshore winds, in a depth of 15m, sand and clay, about 1 mile E of this harbor.

Vitemolla, a small fishing harbor, lies 1 mile NW of Kivik and is formed by two breakwaters. It has a controlling depth of 2.4m, but is subject to silting.

Yngsjo, a small fishing harbor, lies about 0.5 mile inside a river mouth, 10 miles N of Kivik. It has a controlling depth of 3m, but the river entrance is subject to silting.

Ahus is located about 16 mile N of Stenshuved, at the W side of Hanobukten. Solvesborg is located in the NW part of the bay, about 11 miles NE of Ahus. The shorebank, with depths of less than 10m, extends up to about 7 miles seaward between these two ports.

Tosteberga, a small fishing harbor, lies 6 miles N of Ahus and is protected by two breakwaters. The entrance is 13m wide and has a controlling depth of 2.3m.

4.35 Lagerholmen Light (55˚58'N., 14˚28'E.) is shown from a prominent tower, 17m high, standing on a rocky islet of the same name, about 5 miles NE of Ahus.

A detached shoal patch, with a least depth of 7.3m, lies almost in the center of Hanobukten, about 9 miles S of the light.

Fjalkinge Backe (56˚03.4'N., 14˚17.4'E.) consists of two conspicuous barren hills rising about 7.5 miles N of Ahus, which are connected by a low and flat area. The highest hill has an elevation of 101m and the other an elevation of 66m. A tower surmounting the highest peak is reported to be radar conspicuous.

Lagerholmen Light

Sillnasudde Light (56˚00'N., 14˚37'E.) is shown from a prominent tower, 11m high, standing on an islet lying close off a headland, 5.3 miles NE of Lagerholmen Light.

Taggen Lighted Buoy (55˚54'N., 14˚35'E.), marking the outer shoals in the approaches to Ahus and Solvesborg, is moored about 5.5 miles SE of Lagerholmen Light.

Vastra Torsviken and Ostra Torsoviken are two bights which indent the coast between Sillnasudde Light and Bjorknabben, a point located 2 miles E. Halleviksviken, another bight, indents the coast between Bjorknabben and Kraknabben, 1.5 miles E. The terrain at the heads of these bights is wooded and backed by prominent hills which rise about 1 mile inland.

Torso, a small and shallow fishing harbor, lies at the head of Ostra Torsoviken and is formed by two breakwaters.

Hallevik, a small fishing harbor, lies at the head of Halleviksviken. It has a controlling depth of 3m and is protected by two moles and a detached breakwater.

From Kraknabben, the coast trends 3.5 miles NE to Listershuvud and is high and steep.

Nogersund (56˚00'N., 14˚44'E.), a small harbor, is situated 1 mile NE of Kraknabben. It is used by fishing vessels and small craft. This harbor, which provides 500m of berthage, is formed by two breakwaters and has depths of 2 to 4m. A short dredged channel, with a depth of 4.5m over a width of 40m, leads N to the entrance. The fairway is marked by buoys and indicated by a lighted range.

It is reported (2002) that a conspicuous wind generator, 35m high, stands close E of Nogersund.

Ahus (55˚56'N., 14˚19'E.)

World Port Index No. 24300

4.36 Ahus lies at the mouth of the Helge River, 16 miles N of Stenshuvud. It serves as the port for the city of Kristianstad which is situated 9 miles NW.

Winds—Weather.—The harbor is protected against winds from any quadrant, but the low coastal area in the vicinity is

Table of Contents

open to S and E gales. Strong E winds raise the water level by up to 0.7m and W winds lower it by as much as 0.5m.

Ice.—Ice is seldom a hindrance and the port usually remains open all year.

Tides—Currents.—Currents in the entrance fairway flow in N or S directions at rates of 1 to 2 knots. The direction and strength of the currents may vary in different sections of the channel due to shoals.

Depths—Limitations.—The main approach channel leads WNW and WSW through the off-lying dangers from the vicinity of Taggen Lighted Buoy. It has a least depth of 8.5m over a minimum width of 70m. A secondary channel leads NNW for 9 miles to join the main fairway about 1.2 miles E of the harbor. It can be used by small craft with local knowledge and drafts up to 4m.

The harbor entrance is protected by two short breakwaters. It is 65m wide and has a dredged depth of 8m. Quays line both banks of the river mouth. The harbor provides 1,480m of total main quayage with depths of 5.8 to 8m alongside. There are facilities for bulk, general cargo, and timber vessels. Vessels up to 170m in length and 7.6m draft can be accommodated.

Aspect.—Numerous shoals and rocky patches, which may be best seen on the chart, lie in the approaches to the port and extend up to about 10 miles seaward. The principal fairway channel is indicated by lighted ranges and marked by buoys.

The terrain in the vicinity of the harbor is mostly low and flat. Several silos, tanks, and chimneys standing in the vicinity of the harbor are conspicuous from seaward.

Pilotage.—Pilots are available at Ahus and are controlled by the main station at Karlshamn. However, all ordering of pilots must be made through VTS Malmo (see paragraph 1.1). Vessel must send an ETA and a request for pilotage at least 12 hours and 5 hours before arrival. For details of compulsory pilotage in this area, see Karlshamn. Pilots can be contacted by VHF and board in the vicinity of Pallagrund (55˚55'N., 14˚28'E.), 5 miles ESE of the harbor entrance, or in the vicinity of Taggen Lighted Buoy (55˚54'N., 14˚35'E.).

Regulations.—Inbound vessels of over 200 grt or over 40m in length (including towing vessels with a combined length of over 40m) must report 30 minutes prior to arrival at the quay on VHF channel 13 to Karlshamn Pilots.

Anchorage.—Anchorage can be taken, in depths of 11 to 17m, sand, clay, and stone, about 2.5 miles S of Lagerholmen Light. However, this roadstead is exposed to S and E gales.

Caution.—The entrance channel is subject to frequent silting and the port authorities should be contacted for the latest information concerning depths.

A firing practice range (Rinkaby) is situated in the inner approaches to the port.

Solvesborg (56˚03'N., 14˚35'E.)

World Port Index No. 24310

4.37 The port of Solvesborg is situated on the W side of the head of a well-sheltered inlet, which indents the N coast of Hanobukten. The harbor consists of two basins with a shipyard complex situated between them. An extensive pleasure craft harbor is situated 1 mile SW of the port.

Winds—Weather.—Strong SW winds raise a rough sea off the harbor and in the roadstead.

Ice.—Ice may impede vessels during prolonged cold weather in January and February.

Depths—Limitations.—The approaches are encumbered by numerous islets and shoals, which lie up to about 5 miles offshore and may best be seen on the chart. A main approach channel, with a least depth of 8.2m over a minimum width of 65m, leads NW and NNE through the off-lying dangers to the harbor. A channel, with a least depth of 7.5m and a width of 60m, then leads to the inner part of the harbor.

The outer basin provides 380m of main commercial quayage and an oil berth, with a depth of 8.2m alongside. There is also a ro-ro berth, 85m long, with a depth of 7.5m alongside. Vessels with drafts up to 7.7m can enter this basin.

The inner basin provides about 350m of main commercial quayage with depths of 6 to 7.5m alongside. Vessels with drafts up to 5.8m can enter this basin.

The harbor has facilities for general cargo, bulk, ro-ro, container, oil, and timber vessels. Vessels up to 170m in length and 7.7m draft can be accommodated.

Aspect.—The terrain backing and adjacent to the harbor is generally low, partly wooded, and interspersed with ridges of high hills. Ryssberg, a ridge of high hills, extends N for about 9 miles from close N of the town.

The main fairway is marked by lighted buoys and beacons and is indicated by lighted ranges. A light (Tunoren) is shown from a framework tower standing on a group of rocks, awash, lying 2.5 miles W of Sillnasudde Light. Several conspicuous silos, chimneys, and sheds stand in the vicinity of the harbor.

Solvesborg

Pilotage.—Pilots for the port are provided from Ahus and are controlled by the main station at Karlshamn. However, all ordering of pilots must be made through VTS Malmo (see paragraph 1.1). Vessel must send an ETA and a request for pilotage at least 12 hours and 5 hours before arrival. For details of compulsory pilotage in this area, see Karlshamn (paragraph 4.40). Pilots can be contacted by VHF and board in the vicinity of Pallagrund (55˚55'N., 14˚28'E.), 5 miles ESE of Ahus, or in the vicinity of Taggen Lighted Buoy (55˚54'N., 14˚35'E.), or in a position about 5 miles SSE of the port.

Regulations.—Inbound vessels of over 200 grt or over 40m in length (including towing vessels with a combined length of over 40m) must report 30 minutes prior to arrival at the quay on VHF channel 13 to Karlshamn Pilots.

Anchorage.—Vessels can anchor, in a depth of 12m, sand, within an area lying about 1.5 miles S of Sillnasudde Light. Local knowledge is required and the roadstead is exposed to strong winds from E to SW.

Hano Light

4.38 Listershuvud (56˚02'N., 14˚47'E.), marked by a light, is a high, precipitous, and prominent point located 2.5 miles NE of Nogersund.

Laxgrundet, a shoal area with rocks awash, extends up to about 1 mile NNE of Listershuvud and is marked by buoys.

Blocket, a shoal area with a least depth of 3m, extends up to about 2.5 miles S of Listershuvud and is marked by buoys.

Hano (56˚01'N., 14˚51'E.), a mostly barren island, is 60m high and lies 2.5 miles ESE of Listershuvud. Bonsacken, the NW extremity of the island, is fronted by a low spit and marked by a light. A small and shallow fishing harbor is situated at the W side of the island, 0.5 mile S of this point.

A main light is shown from a prominent tower, 16m high, standing on the summit of the island, 0.5 mile SE of the NW extremity.

Malkvarn, an isolated and dark above-water rock, lies on a shoal patch, about 1.2 miles NE of Hano Light.

Anchorage can be taken, in depths of 18 to 25m, sand and clay, to the SW and NE of the island, but storms cause a heavy swell at both of these roadsteads.

Hanosund (56˚00'N., 14˚48'E.), a navigable passage, leads between Hano and the mainland. It is 2 miles wide and has a least depth of 12m in the fairway. Obstructions extending E into the passage are marked by buoys.

Hanobanken (55˚56'N., 14˚52'E.), an extensive shoalbank, lies between 2 and 6 miles SE of Hano and may best be seen on the chart. It has numerous ridges with depths of 9 to 20m over a bottom of sand and gravel.

Caution.—Three submarine cables extend across Hanosund and may best be seen on the chart.

Small danger areas, within which unexploded ordnance lies, are located about 3 miles ENE, 7 miles E, 11 miles ESE, 11.5 miles SE, and 13.5 miles SE of Hano Light.

4.39 Pukaviksbukten (56˚07'N., 14˚47'E.), an extensive bay, is entered between Listershuvud and Starno Udde, the S extremity of a peninsula, 6.5 miles NNE. This bay is encumbered by numerous shoals which may best be seen on the chart. The shores of the bay are irregular, low, and forested. They are fronted by numerous reefs that extend up to about 3 miles seaward.

Several channels lead between the various dangers and obstructions to a few small fishing harbors, but local knowledge is required. There are also a few small anchorages and loading places, with depths of 3 to 9m, within the bay, but local knowledge is required.

Ryssberget, a range of hills, backs the head of the bay. This range stands about 3 miles inland and attains a height of 126m.

Horvik, a small fishing harbor, is situated 0.7 mile NW of Listershuvud. The entrance, which is formed by two breakwaters, is 27m wide and has a controlling depths of 4m.

Krokas, a small and shallow fishing harbor, is situated 0.5 mile NW of Horvik and protected from the E by a breakwater.

Pukavik (56˚10'N., 14˚41'E.), a small harbor and loading place, lies at the head of the bay. The harbor consists of an open roadstead with depths of 3.2 to 4.2m over a bottom of sand and clay. Two damaged piers are situated within the harbor. Approach channels from E and SE lead between the off-lying dangers to this anchorage, but local knowledge is essential.

Elleholm (56˚10'N., 14˚44'E.), a small fishing harbor and loading place, is situated within an inlet, 1.8 miles E of Pukavik. The harbor consists of a roadstead, with a depth of 5m, and a jetty, 20m long, with a depth of 4.5m alongside. Local coastal vessels up to 65m in length and 4m draft. can enter the harbor. The approach channel leads W, WNW, and N into the inlet. The entrance fairway is indicated by a lighted range and marked by buoys.

Gunnon (56˚09'N., 14˚47'E.) (World Port Index No. 24360), an islet, lies 1.7 miles E of Elleholm and is connected at its N end by a bridge to the mainland. A sector light is shown from a column, 11m high, standing at the S end of the islet and a prominent beacon is situated on a shoal lying 0.4 mile SE of it. Three conspicuous wind generators stand in the vicinity of the light.

An approach channel, marked by buoys, leads N to a jetty situated at the E side of the islet. This jetty is 45m long and has a depth of 4.8m alongside. Vessels can obtain anchorage, in depths of 6 to 10m, clay, off the jetty head.

Caution.—A submarine pipeline, which may best be seen on the chart, extends about 1 mile S, 1 mile ESE, and then 1 mile S from a point on the shore located 0.4 mile W of Gunnon Light. Its position is marked by lighted buoys.

Extensive salmon takes place within Pukaviksbukten from March to September.

Karlshamn (56˚10'N., 14˚52'E.)

World Port Index No. 24370

4.40 Karlshamn, a commercial port, lies at the head of an inlet, 1.8 miles NNE of Starno Udde (56˚08'N., 14˚50'E.). It is sheltered at the W side by the Starno peninsula, at the E side by a group of islets, and to the SE by Tarno Island. The harbors of

Stillerydshamnen, situated in an inlet at the W side of the Starno peninsula, and Kolohamnen, situated close E of Stillerydshamnen, are included in the administrative port of Karlshamn.

Winds—Weather.—The harbor is exposed to S and SE winds and is subject to sudden SE squalls. Normally, the water level rises or falls about 0.5m above or below the mean level. At times, the difference may be as much as 0.9m. Winds from between N and E usually raise the water level and winds from between NW and S usually lower it.

Ice.—The harbor is usually free of ice, but if required the channels are kept open by icebreakers.

Tides—Currents.—Troublesome currents along this part of the coast are occasionally caused by strong E winds.

Depths—Limitations.—The main approach to the port is from S or SE, passing E of Hanobanken. Vessels may also approach through Hanosund. The main entrance channel, with a least depth of 12.6, leads NNW toward Karlshamn and divides 1 mile S of the harbor. The principal fairway, authorized for drafts up to 10m, then leads NW toward the oil and bulk berths. A branch fairway, authorized for drafts up to 8.5m continues NNW into the inner part of the harbor.

Sutudden Oil Jetty lies close inside the breakwaters. It has a head, 70m long, with a depth of 11m alongside. Tankers up to 30,000 dwt, 190m in length, and 10m draft can be accommodated.

The main inner harbor of Karlshamn includes Ocean Quay, 150m long, with a depth of 9m alongside; Soya Quay, 250m long, with a depth of 8m alongside; West Quay, 400m long, with depths of 6 to 7.5m alongside; East Quay, 350m long, with a depth of 6m alongside; and East Pier, 160m long, with a depth of 7.5m alongside.

Sterno, a harbor basin, lies close S of Sutudden oil jetty. It has 480m of total quayage with a depth of 6m alongside. This basin is entered through a fairway which is authorized for drafts up to 5.4m.

The channel leading NW and NNE toward Stillerydshamnen and Kolohamnen has a least depth of 14m and is authorized for drafts up to 13m. A branch fairway, authorized for drafts up to 10.5m, leads NW to the cargo berths at Stillerydshamnen.

Stillerydshamnen has 600m of total quayage with depths of 8 to 11m alongside. There are facilities for general cargo, container, and ro-ro vessels. Vessels of up to 220m in length and 10.5m draft can be accommodated.

Oxhaga Nabb Oil Jetty is situated at the N side of Kolohamnen. It has a head, 80m long, with a depth of 13m alongside. Tankers of up to 220m in length and 12.5m draft can be accommodated.

Kolo Oil Jetty is situated at the S side of Kolohamnen. It has a head, 100m long, with a depth of 14m alongside. Tankers up to 260m in length and 13m draft can be accommodated.

The port has facilities for general cargo, ro-ro, container, bulk, timber, chemical, petroleum, and LPG vessels.

Aspect.—The harbor is fronted by several dangers and obstructions which lie up to about 2 miles seaward. The main approach channel, which is entered about 2 miles SE of Starno Udde, leads NNW into the central part of the port. It is marked by lighted buoys and indicated by lighted ranges.

A channel, which is entered about 1.5 miles SSW of Starno Udde, leads NW and then NNE into the harbors of Kolohamnen and Stillerydshamnen. It is marked by buoys and indicated by a lighted range. Obstructions lying adjacent to these fairways are marked by buoys and beacons.

Several silos and tanks stand in the vicinity of the harbor and are all conspicuous from seaward. A prominent church, with a cupola and a pointed steeple, is situated in the town. Three prominent chimneys stand at a power station located in the vicinity of Kolohamn, on the NW side of the Starno peninsula.

Pilotage.—A main pilot station is located at Karlshamn. This station provides pilots for that part of the Maritime Area extending between a line bearing 155° through Bromse (56°19'N., 16°03'E.) and latitude 55°25'N. However, all ordering of pilots in this area must be made through VTS Malmo (see paragraph 1.1). Vessels should send an ETA and a request for pilotage at least 12 hours and 5 hours before arrival.

Pilotage for this part of the Maritime Area is compulsory for the following:

1. All Category 1 vessels.
2. Category 2 and 3 vessels of 70m length, 14m beam, and 4.5m draft and over.

In certain channels between the approaches to Karlshamn and the port, pilotage is compulsory for the following:

1. All category 1 vessels.
2. Category 2 vessels of 80m length or 15m beam and over.
3. Category 3 vessels of 90m length or 16m beam and over.

In certain channels between Aspo and Verko, pilotage is compulsory for the following:

1. All category 1 vessels.
2. Category 2 vessels of 70m length or 14m beam and over.
3. Category 3 vessels of 90m length or 16m beam and over.

Pilots for the port can be contacted by VHF and board at the Outer Boarding Station, about 3 miles SSE of Starno Udde or at the Inner Boarding Station, 2 miles SE of Starno Udde.

Regulations.—Inbound vessels of over 200 grt or over 40m in length (including towing vessels with a combined length of over 40m) must report 30 minutes prior to arrival at the quay on VHF channel 13 to Karlshamn Pilots.

Tankers proceeding to berths in Kolohamnen must have an underkeel clearance of 0.5m if fitted with a double bottom or 1m if not.

Anchorage.—Anchorage can be taken, in depths of 17 to 24m, sand and gravel, within the outer part of the inlet, but this roadstead is exposed to S winds.

Vessels with local knowledge can anchor, in a depth of 11m, clay, within an area located W of Kastellet (56°09.6'N., 14°52.0'E.), an islet lying in the inner part of the inlet. Vessels anchored in this roadstead are limited to a period of 24 hours unless permission to stay is received from the authorities.

Caution.—A submarine cable, which may best be seen on the chart, extends SE and S from the vicinity of Starno Udde.

It is reported that the dredged area fronting the oil jetties in Kolohamnen does not extend past the berths. Vessels should take care when maneuvering in this vicinity not to overrun the berths.

Degaussing ranges lie close N and E of Kastellet islet. The northernmost range is marked by several dolphins.

Karlshamn lies within a semi-restricted area. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details.

4.41 The coast between Karlshamn and Ronneby, 14 miles E, is generally low with few significant features. There are a number of wooded areas. The shore is indented by numerous inlets. Small islands, islets, rocks, and shoals, front the coast and lie up to about 3 miles seaward.

A number of small harbors, loading places, and anchorages are situated amongst the off-lying obstructions. Narrow channels lead through the dangers to these facilities but they should not be used without local knowledge.

Tarno Island (56˚07'N., 14˚58'E.) lies 4 miles SE of Karlshamn at the seaward side of the obstructions fronting this section of the coast. It has a bare summit surrounded by trees. A small fishing harbor is situated at the N side of the island. A main light is shown from a prominent structure standing close N of the S extremity of the island.

Vagga (56˚10'N., 14˚53'E.), a small harbor, is situated on the SE side of the inlet, 1.5 miles SE of Karlshamn, and used by fishing vessels. It is protected from S and W by breakwaters and has a controlling depth of 4m.

Vettekulla (56˚10'N., 14˚55'E.), a small harbor and loading place, is situated in an inlet 2 miles ESE of Karlshamn. A fairway leads NNE to this harbor and can be used by small vessels with drafts up to 3.5m. There is a small pier with a depth of 3.5m alongside. Small vessels, with local knowledge, can anchor, in a depth of 5m, sand, off the harbor.

Matvik (56˚10'N., 14˚58'E.), a loading place, lies within Matsviktjarden, a small inlet. A prominent beacon stands on a hill which rises 0.5 mile NNW of the harbor and is partly wooded. An inshore channel leads E from the approaches to Karlshamn to this loading place and can be used by vessels with drafts of up to 8.2m. Another approach channel leads W and can be used by vessels with drafts up to 5m. There is a pier with a depth of 3.5m alongside. Vessels can anchor, in depths of 9 to 14m, clay, within the inlet. Local knowledge is required.

Guovik (56˚12'N., 15˚01'E.), a loading place with two shallow jetties, is situated in an inlet 5 miles E of Karlshamn and is used by small craft. Vessels, with local knowledge, can anchor, in a depth of 6m about 1.5 miles seaward of the jetties.

Jarnavik (56˚11'N., 15˚05'E.), a loading place, lies in an inlet 7 miles E of Karlshamn. There is a small jetty with a depth of 3m alongside. Anchorage can be taken, in depths of 6 to 7m, sand and clay, off the jetty. Vessels can also anchor, in depths of 12 to 14m, good holding ground, about 1.2 miles SW of the jetty.

Guovik and Jarnavik are approached from seaward through a common channel. A branch then leads W to Guovik and another E to Jamavik. The fairways can be used by small vessels with local knowledge and drafts up to 5m.

Caution.—Local magnetic disturbances have been reported off the coast in this vicinity.

Ronneby (56˚11'N., 15˚18'E.)

World Port Index No. 24440

4.42 Ronneby, a commercial port, is situated at the mouth of the Ronneby River. The town stands on both banks of the river, 2.5 miles above the entrance.

Winds—Weather.—Fresh to strong W winds may cause the water level in the harbor and approaches to fall by as much as 0.9m.

Ice.—In normal winters, ice seldom impedes vessels, but during severe winters, ice sometimes hinders vessels in February and March.

Tides—Currents.—The current sets in the same direction as that of the river. At times, a considerable outflow from the river can cause difficulties when maneuvering in the harbor.

Depths—Limitations.—The harbor lies at the head of an inlet and is fronted by numerous islets, rocks, and shoals. The main approach channel, which has a least depth of 6.5m, leads NNE through the obstructions and passes close W of Gasfeten Light. It then leads E and NNE to the harbor.

A secondary approach channel leads N, NNW, and NNE from a position located about 2 miles ESE of Gasfeten Light. It is only used by small vessels with local knowledge and drafts up to 3m.

Quays line both sides of the river mouth. There is 300m of principal berthage, with depths of 3.5 to 6.5m alongside, at the W side. There is 100m of principal berthage, with depths of 4.5 to 6.5m, at the E side. There are facilities for general cargo, oil, bulk, timber, and chemical vessels. Vessels of up to 152m in length and 6.1m draft can be accommodated.

Aspect.—Golandet, a large peninsula, forms the SE side of the outer approach to Ronneby. It is fronted by several rocks, shoalbanks, and reefs.

Gasfeten, a small islet, lies 4.5 miles SW of the harbor. A main light, equipped with a racon, is shown from a prominent tower, 10m high, standing on this islet.

The main approach channels are marked by buoys and beacons and are indicated by lighted ranges.

An aeronautical light is shown from a structure standing 3 miles N of the town. A railroad bridge and a road bridge span the river close N of the harbor. A water tower situated in the town is reported to be prominent from offshore.

Pilotage.—Pilots are provided by and must be obtained from the main station at Karlshamn. However, all ordering of pilots must be made through VTS Malmo (see paragraph 1.1). Vessel must send an ETA and a request for pilotage at least 12 hours and 5 hours before arrival. For details of compulsory pilotage in this area, see Karlshamn (paragraph 4.40).

Regulations.—Inbound vessels of over 200 grt or over 40m in length (including towing vessels with a combined length of over 40m) must report 30 minutes prior to arrival at the quay on VHF channel 13 to Karlshamn Pilots.

Anchorage.—Anchorage can be taken, in depths of 7 to 10m, stiff mud and clay, N of Stora Ekon (56˚08'N., 15˚13'E.), an islet. Foreign vessels must anchor in this roadstead.

Caution.—The port and approaches lie within a restricted and controlled area. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details.

Table of Contents

Local magnetic disturbances have been reported in the approaches to the port.

4.43 Between the approaches to Ronneby and Torhamnsudde (56˚04'N., 15˚51'E.), a point located 20 miles ESE, the irregular coast is partly wooded with low, rocky hills rising inland. Several large islands and numerous islets, rocks, and reefs front the mainland and extend up to about 8 miles offshore. Several detached shoal patches, generally marked by buoys, lie seaward of the outer islands and islets.

A few small fishing harbors and local anchorage roadsteads are situated along this stretch of coast and can be approached through intricate channels by small vessels with local knowledge.

Torko (56˚09'N., 15˚25'E.), a small island, lies at the head of an inlet and has a small harbor. There is a jetty, 80m long, with a depth of 3m alongside.

Kuggeboda, a loading place with a shallow pier, is situated on the mainland, 6 miles SW of Torko. Small vessels, with drafts up to 5m, can transit a narrow channel and reach the anchorage off Kuggeboda, which has depths of 4 to 8m, mud.

Several reef-fringed islets and numerous detached shoals lie between Kuggeboda and Hasslo Island, 2.5 miles SE. An approach channel, for vessels with local knowledge, leads E through these obstructions to Karlskrona and is marked by beacons.

Hasslo Island (56˚07'N., 15˚28'E.) is one of a group of four low islands fronting Karlskrona. This island is fringed by reef flats and several detached shoal patches, which are marked by buoys, extend up to about 2 miles seaward of it.

Carpaviken, a small fishing harbor, is situated at the SE side of Hasslo Island and is formed by two breakwaters. The entrance, 18m wide, is approached through a buoyed channel with a least depth of 4m. Hallarna, another small fishing harbor, is situated at the NW side of Hasslo Island and has a controlling depth of 4m.

4.44 **Aspo** (56˚07'N., 15˚32'E.), an island, lies on the W side of the main approach channel leading to Karlskrona. Numerous obstructions, some marked by buoys and beacons, lie up to 2 miles S of this island. A conspicuous disued lookout tower stands on this island.

Drottningskar, a small and shallow fishing harbor, is situated at the E side of Aspo. A prominent fort stands at the W side of the harbor entrance.

Tjurko (56˚07'N., 15˚37'E.), an island, lies 1 mile E of Aspo and on the E side of the main approach channel leading to Karlskrona.

Kungsholmen (56˚06'N., 15˚35'E.), an islet, lies close W of Tjurko and is surmounted by a conspicuous fort.

Sturko (56˚06'N., 15˚40'E.), an island, lies 3.5 miles SE of Tjurko and may be identified from offshore by a church, with a conspicuous steeple, standing on its SE side.

Ekenabben and Sanda are two small and shallow fishing harbors which are situated at the E side and at the NW side, respectively, of Sturko.

Vastra Forsankningen Light (56˚07'N., 15˚35'E.), situated between Aspo and Kungsholmen, is a main sector light shown from a floodlit dolphin, 6m high. This light is situated on the W side of the main entrance channel leading to Karlskrona and is equipped with a racon.

Numerous islets, rocks, reefs, and shoals, lie in an area extending E from Sturko as far as Torhamnsudde and SE as far as Utlangan (56˚01'N., 15˚47'E.). This area has only been partially surveyed. Several narrow channels, some marked by buoys, lead through the area and are used by local coastal vessels and fishing boats.

Djupasund (56˚06'N., 15˚38'E.), a narrow passage, separates the islands of Tjurko and Sturko and is spanned by a fixed bridge with a vertical clearance of 3m. A lighted range indicates a fairway, with a depth of 4m, which leads N through the passage to two small fishing harbors.

Caution.—This section of coast and the offshore islands and islets lie within a restricted area. Foreign vessels must not enter the fairways leading to anchorages or loading places without special permission. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details.

Local magnetic disturbances have been reported off this section of the coast.

Several gunnery practice areas lie between Ronneby and Karlskrona and extend up to about 5 miles offshore. Anchoring and stopping within these areas is prohibited.

Karlskrona (56˚10'N., 15˚36'E.)

World Port Index No. 24460

4.45 The port of Karlskrona, which is an extensive naval base, lies within an inlet entered 10 miles E of Ronneby. Several islands and islets front the port and afford good shelter. The town is partly built on islands which are joined to the mainland.

Winds—Weather.—The water level in the port may rise or fall as much as 1m above or below the mean level. Winds from between N and E raise the level and winds from between NW and S lower it.

Ice.—The harbor is usually free of ice.

Tides—Currents.—Troublesome currents are sometimes caused along this part of the coast by strong E winds.

Depths—Limitations.—The main entrance channel leads N and passes between the islands of Aspo and Tjurko. It has a least depth of 12m and can be used by vessels with drafts of up to 10m. An alternate entrance channel, lying 0.5 mile W of the main channel and running parallel to it, can be used by vessels with drafts of up to 7m. This alternate channel joins the main channel close W of Kungsholmen.

A secondary inshore approach channel, with a least depth of 4.9m, leads from the W into the harbor. It passes N of Hasslo and Aspo and is narrow. This channel can be used by vessels with drafts of up to 4.2m, but local knowledge is required. A bridge, which swings to form an opening 20m wide, spans the channel.

Another inshore approach channel, with a least depth of 3.6m, leads from the E. It passes between Torhamnsudde and Langoren and can be used by vessels with drafts of up to 3.2m.

The naval base occupies the area S and SW of the town. The main commercial harbor lies NE of the town. There is 1,500m of total quayage with depths of 4 to 10m alongside. In addition,

an oil pier has two berths, with depths of 7m and 9m alongside, which can handle tankers up to 160m in length and 8.5m draft.

There are facilities for oil, general cargo, passenger, bulk, and ro-ro vessels. Cargo vessels are limited to a draft of 7m.

There are several repair drydocks within the port, which can handle vessels up to 200m in length, 26.2m beam, and 7.5m draft.

Aspect.—The approach fairways are indicated by lights and several lighted ranges. Numerous obstructions lie in the approaches and those located adjacent to the entrance channels are marked by lights, buoys, and beacons.

Karlskrona Angoring Lighted Buoy, marking the entrance of the main channel, is moored about 3.5 miles SSW of Vastra Forsankningen Light (56˚07'N., 15˚35'E.).

A church, with two prominent towers, is situated in the town and a conspicuous radio mast stands 1 mile NNE of it. A conspicuous water tower also stands in the vicinity of the town.

Pilotage.—Pilots are provided by the main station at Karlshamn. However, all ordering of pilots must be made through VTS Malmo (see paragraph 1.1). Vessel must send an ETA and a request for pilotage at least 12 hours and 5 hours before arrival. For details of compulsory pilotage in this area, see Karlshamn (paragraph 4.40). Pilots can be contacted by VHF and board in the vicinity of the Karlskrona Angoring Lighted Buoy (56˚03'N., 15˚33E.).

Regulations.—Inbound vessels of over 200 grt or over 40m in length (including towing vessels with a combined length of over 40m) must report 30 minutes prior to arrival at the quay on VHF channel 13 to Karlshamn Pilots.

Tankers may not be underway in the port when passenger ships over 50m in length or other vessels over 70m in length are also underway in the port.

Anchorage.—Good and sheltered anchorage can be taken, in depths of 7 to 22m, mud and clay, within Yttre Redden, the outer roadstead, which lies between the N part of Aspo and the N part of Tjurko. Local knowledge is required.

Caution.—Several submarine cables, which may best be seen on the chart, lie in the vicinity of the anchorage and across the entrance channels.

The approaches to the port lie within a restricted area. Foreign vessels must not enter the entrance channels without prior permission. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for further details.

Within the archipelago fronting the port, several secondary channels, which lead to the inner harbors and loading places, are fitted with submarine barriers. These channels may be closed for military reasons, if required, and anchoring and fishing are prohibited within them.

Local magnetic disturbances have been reported in the approaches to the port.

Several gunnery practice areas lie in the W and S approaches to Karlskrona and extend up to 20 miles seaward. In addition, torpedo firing exercises are conducted on ranges lying in the approaches to the port. These ranges and areas are marked by buoys and floats. Red flags and red lights are displayed from the floats during firing. The local authorities or coastal radio stations should be contacted for information concerning firings.

4.46 Utlangan (56˚01'N., 15˚47'E.), a low and bare island, lies 3.5 miles SSW of Torhamnsudde. A main light is shown from a prominent tower, 13m high, standing on the S extremity of this island. Foul ground and rocks extend up to about 0.5 mile S of the island and are marked by a lighted buoy, moored 1.2 miles SSE of the light.

Klotet, a dangerous rock, lies close SSE of the S extremity of Utlangan and is generally marked by breakers.

Langoren (56˚04'N., 15˚50'E.), an island, lies 1.5 miles NNE of Utlangan and about 1 mile SW of Torhamsudde. The E and inshore approach channel leading to Karlskrona passes N and NW of this island. A conspicuous beacon, 21m high, stands on this island.

Utklippan (Utklipporna) (55˚57'N., 15˚42'E.), formed by a group of rocks, lies 8.5 miles SW of Torhamnsudde and is the outermost danger in this vicinity. A small and shallow fishing harbor is situated between the two larger rocks of the group and is protected by two breakwaters. A main light is shown from a prominent framework tower, 30m high, standing on an old fort which surmounts a rock at the S end of the group.

Utklippan Light

An area of shoals, with depths of less than 7m, extends up to 2.3 miles N and E of the group.

Torhamnsudde (56˚04'N., 15˚51'E.) is a bare point located 4 miles NNE of Utlangan Light. A church, with a spire, stands l.2 miles NNE of this point and is conspicuous from seaward.

Torhamn, a small and shallow fishing harbor, is situated 1.5 miles NW of the point and is formed by two breakwaters. A conspicuous radio mast stands at an elevation of 132m about 3 miles N of the harbor.

Caution.—An explosives dumping area, which may best be seen on the chart, lies centered 1.4 miles ESE of Utklippan Light.

A small unexploded ordnance areas, which may best be seen on the chart, lies about 2.3 miles W of Utklippan Light.

A large unexploded ordnance area, the limits of which may best be seen on the chart, lies centered 4.5 miles NW of Utklippan Light.

Table of Contents

Large vessels are advised to stay at least 4 miles S of Utklippan Light when transiting this past of the coast.

Bornholm (Danish)

4.47 Bornholm (55˚00'N., 15˚00'E.), a prominent island, lies in the Baltic Sea about 20 miles ESE of Sandhammaren and close to many navigational routes. The coasts of the island have few indentations and generally rise steeply from the shore except at the S extremity which is low and sandy. They are fringed by coastal reefs which are steep-to, except off the SW side.

The terrain rises inland to a wooded summit, 160m high, which stands near the middle of the island. A prominent monument, 12m high, surmounts the summit and rises above an area of trees. A conspicuous radio mast stands 2.5 miles NNW of the monument and a conspicuous television tower is situated 0.5 mile NNE of it.

During the summer months, it is common for winds to be of greater force on the lee side of the island than on the windward side. At times, it is calm on the windward side while moderate winds blow on the lee side. These conditions are reversed in autumn and winter.

There are no tidal currents along the coasts of the island. Currents generally follow the direction of the wind and their rates are negligible. Predominant W and SW winds sometimes produce a weak surface current. Fresh NW winds, blowing off the N end of the island, sometimes cause strong currents which set to the S. These can be dangerous in foggy weather. Water levels in the vicinity of the island are usually raised by E winds and lowered by W winds.

Pilotage.—Deep sea pilots for vessels entering and leaving the Baltic Sea are stationed at Bornholm and board vessels off Hammer Odde, the N extremity of the island. Vessels should send a request to the Draggor pilot station (55˚35'N., 12˚41'E.) at least 18 hours in advance.

Caution.—Local magnetic disturbances have been reported in the vicinity of Bornholm. It was reported that a compass needle had been deflected up to 6˚ in the waters lying off the N coast of the island.

Several small danger areas lie off the N and E coasts of Bornholm and may best be seen on the chart. Anchoring and fishing are prohibited in these areas due to the residual danger from bottom mines, gas canisters, and aircraft wreckage.

Two small prohibited areas, dangerous on account of mines, lie off the SW coast of Bornholm and may best be seen on the chart.

Several wrecks, some dangerous, lie off the coast of Bornholm and may best be seen on the chart.

Several submarine cables extend seaward from the W and S sides of Bornholm and may best be seen on the chart.

4.48 Hammer Odde (55˚18'N., 14˚46'E.), the N extremity of Bornholm, is backed by steep cliffs. It appears as a low island from the E and W and is reported to be difficult to distinguish at night. A main light is shown from a prominent tower, 12m high, standing on the point.

Davids Banke (55˚22'N., 14˚41'E.) lies about 5 miles NW of Hammer Odde. This isolated bank has a least depth of 11m and is formed by stones, sand, and gravel.

Hammer Odde Light

Hammaren, the N and rocky part of the island, consists of a hill, 82m high, which rises 1 mile S of Hammer Odde. This hill is steep-to on its SW side, but slopes gradually to the NE and is separated from the land in the vicinity by a valley. A disused round light structure, 21m high, stands near the highest part of the hill. It is prominent, but obscured from the S.

The W coast of the island extends 12 miles S to Ronne and the narrow foreshore is backed, in places, by steep cliffs up to about 90m high. The S part of this stretch of coast is partly wooded, low, and sandy.

Hammerhavnen, a small harbor, lies at the head of a bight situated close SW of hammer Odde. It is formed by two breakwaters and used by fishing vessels. The entrance, which faces W, is 30m wide and has a controlling depth of 3.5m, but is subject to silting. Anchorage can be taken within the bight, in depths up to 12m, sand and gravel, close offshore, about 0.3 mile S of the harbor. Local knowledge is required.

Vang (55˚15'N., 14˚44'E.), a small fishing harbor, is situated 3.4 miles SSW of Hammer Odde. It is formed by two breakwaters and has a controlling depth of 3m.

A pier, 150m long, is situated 0.3 mile SW of the harbor and is protected by a breakwater. It is used by vessels loading granite. The berths at the NW corner of the pier have depths of 5.7 to 7.5m alongside. Vessels up to 100m in length and 15m beam can be handled.

Teglkas, a shallow boat harbor, lies 2 miles S of Vang and is protected by breakwaters. A very conspicuous church, with a tower, is situated at Rutskirke, 1.4 miles ESE of this harbor. The church stands on a hill, 130m high, and a small belfry is located close SW of it.

4.49 Hasle (55˚11'N., 14˚42'E.) (World Port Index No. 29120), a small and sheltered harbor, is situated 5 miles N of Ronne. It is protected by two breakwaters and consists of five basins. Three basins are used by only small craft, fishing vessels, and pleasure boats. An entrance channel leads E to the harbor and is indicated by a lighted range. The entrance is 80m wide and has a depth of 5.5m. Two basins, with depths of 4m and 5m, provide facilities for commercial vessels. Vessels up to 75m in length, 12m beam, and 4.5m draft can be accommodated.

A prominent silo stands in the inner part of the harbor. A prominent church, with a black steeple, is situated in the middle of the town. A windmill and a wind generator, both conspicuous, are situated close S and close N, respectively, of the town.

Hvideodde (55˚07'N., 14˚42'E.), a sandy point, is located 1.5 miles N of Ronne. Reefs and sunken rocks extend up to about 1 mile seaward of this point and are marked by a buoy.

Anchorage.—During offshore winds, anchorage may be taken anywhere off the W coast of the island between Hastle and Hammeren, 6 miles N, in depths of 20 to 30m. Vessels must leave if the winds shift to the W. Vessels should not anchor along this coast any farther to the S due to the rocky and uneven bottom.

Caution.—Powerful working lights are shown from quarries situated along this stretch of the coast and should not be mistaken for navigational lights.

Ronne (55˚06'N., 14˚42'E.)

World Port Index No. 29110

4.50 Ronne, lying at the SW extremity of Bornholm, is the principal town and port of the island. The harbor is protected by two extensive outer breakwaters and two inner ones.

Ice.—Ice impedes vessels only in severe winters. Normally, ice appears in the harbor in late January and disappears in late February.

Tides—Currents.—The currents are weak and depend on the direction and force of the winds. The water level rises up to 1.2m with E winds and falls by as much as 0.9m with W winds.

Depths—Limitations.—A marina, used by yachts and small craft, is situated close N of the main harbor.

The entrance channel leading to the main harbor passes through several off-lying dangers and obstructions. It leads ENE and has a dredged depth of 9m.

The central and inner parts of the harbor have dredged depths of 8.5m and 7m, respectively. Three basins on the N side of the harbor provide 1,400m of quayage and have depths of 5 to 7m alongside. An oil berth, lying on the S side of the inner harbor, is 110m long and has a depth of 7m alongside. A new quay, on the S side of the central part, is 250m long and has a depth of 8.5m alongside. There are facilities for general cargo, container, bulk, ro-ro, cruise, ferry, tanker, and fishing vessels. Vessels of up to 200m in length and 8m draft can be accommodated.

Aspect.—An outer approach lighted buoy is moored about 2 miles SW of the harbor entrance. The entrance fairway is indicated by a lighted range and obstructions lying adjacent to it are marked by buoys.

Knudskirke, a granite building with a tower, stands on a hill, 70m high, which rises 2 miles ENE of the town. It is very conspicuous from seaward. A low, whitewashed building and a prominent chimney are situated 2 miles NNE and 1 mile NW, respectively, of Knudskirke. A conspicuous radio mast stands 2.3 miles NW of Knudskirke.

A prominent white church, with a red roof and a black steeple, stands near the NE end of the harbor and another prominent gray church, with a red roof and a steeple, is situated close NE of it. A conspicuous castle, circular with a red roof, is situated 0.4 mile S of the white church and a tall chimney stands close NE of it. Another tall chimney is reported to stand about 1.5 miles NE of the white church.

An aeronautical light is shown from a prominent mast standing 7 miles ENE of the harbor.

Ronne

Pilotage.—Pilotage is compulsory for tankers over 1,500 dwt and recommended for all vessels without local knowledge. Pilots can be contacted by VHF and board in the vicinity of the outer approach lighted buoy. Generally, vessels should send an ETA and request for pilotage 12 hours and 3 hours in advance. Vessels should then contact the port on VHF 1 hour prior to arrival and 15 minutes prior to arrival. Radar assistance for entering is available from the pilot station. The port can be contacted by E-mail at havn@roennehavn.dk.

Anchorage.—The rocky, uneven bottom in the vicinity of the port makes anchoring somewhat untenable. It is reported (2000) that vessels can anchor, in depths of 15 to 16m about 0.6 mile W of the N outer breakwater head. However, this roadstead is not safe during strong W winds.

4.51 Galgelokkeodde (55˚05'N., 14˚48'E.), the SW extremity of Bornholm, consists of steep, high cliffs rising close S of Ronne. The SW coast of the island is mostly formed of cliffs, 12 to 18m high, and wooded in parts. It is fringed by shoals and rocky patches. Arnager, a shallow fishing boat harbor, is situated 3 miles SE of Galgelokkeodde.

A prominent aeronautical light is shown from the control tower, 24m high and yellow, of an airport situated 0.8 mile ESE of Galgelokkeodde.

Bakkegrund (54˚59'N., 14˚45'E.), a reef, lies 5 miles offshore and has a least depth of 5m. It is located at the outer edge of a shoal area extending S from the coast and is marked by a buoy. Vessels without local knowledge should pass S of this reef and the shoal area.

Ronne Bank (54˚55'N., 14˚39'E.), with variable depths of 11 to 19m, extends up to about 25 miles SW from the SW side of the island. Several sunken wrecks and patches of foul ground lie on this bank and it should be avoided by deep-draft vessels.

Adlergrund (54˚47'N., 14˚21'E.), a shoal area, lies on Ronne Bank and is centered 22 miles SW of Ronne. It has a bottom of rocks and stones and depths of 6 to 11m.

Raghammer Odde (55˚01'N., 14˚56'E.), located 9 miles SE of Ronne, is a point marked by a tower, 18m high, from which

Table of Contents

firing exercise signals are displayed. A prominent windmill stands 1.7 miles ENE of the point.

Bakkerne, a shallow fishing boat harbor, lies 2 miles SE of Raghammer Odde.

Dueodde (54˚59'N., 15˚05'E.), a low and sandy point, forms the SE extremity of Bornholm. It is fronted by an area of shallow, shifting sands which extends up to 1.5 miles seaward and is steep-to. A main light is shown from a prominent tower, 47m high, standing 0.2 mile N of the point. A prominent disused light tower, 39m high, stands 0.8 mile N of the point. A prominent white building, with a detached belfry, stands 2.5 miles NNW of the point.

Dueodde Light

Anchorage, protected from N and NW winds, can be taken, in depths of up to 15m, sand, close E of Dueodde, but winds from the W raise a heavy swell.

Caution.—Firing exercises are carried out within an area, marked by buoys, which extends up to 2.5 miles offshore in the vicinity of Raghammer Odde. When this area is in use, passage through that part of it lying within Danish territorial waters, is prohibited. See Pub. 140 Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean for further details.

4.52 The rocky and cliffy E coast of the island extends NNE from Dueodde and is fringed by reefs. Winds from the NE raise the water level along this coast by up to 0.3 to 0.6m and winds from the SW lower it by the same amount.

Nekso (Nexo) (55˚04'N., 15˚08'E.) (World Port Index No. 29085), a small and sheltered harbor, is situated about 4.5 miles NE of Dueodde and mostly used by fishing vessels. It is protected by two moles and consists of a series of connected basins. The entrance channel, which leads SW, is indicated by a lighted range and has a least depth of 5m. A commercial basin, with quays, is situated at the N side of the harbor and has a depth of 5m. Vessels up to 78m in length, 21m beam, and 4.5m draft can be accommodated.

The Harbor Master acts as a pilot. Local knowledge is advised. The harbor can be contacted by VHF and requests for pilotage, with an ETA, must be sent 24 hours, 12 hours, and 4 hours in advance. At times, a current, with a rate of up to 1.5 knots, sets across the entrance and may affect steering.

Good anchorage can be taken, in depths of 13 to 15m, about 0.5 mile off the harbor. The bottom is uneven and rocky in some places, but the holding ground is generally good and the swell is low. This roadstead is reported to be the best along the E coast of the island.

Sandkasodde (55˚08'N., 15˚09'E.) is the southernmost of three salient points projecting seaward from the promontory which forms the NE extremity of Bornholm. A main light (Svaneke) is shown from a prominent tower, 18m high, standing on the point.

Arsdale, a small and shallow fishing harbor, lies at the head of a bight, about 2 miles S of Sandkasodde. Two conspicuous white windmills stand close N of the town and a white church, with a tower, stands 2.3 miles W of them. Anchorage can be taken, in depths of 8 to 11m, good holding ground, S of this harbor, but onshore winds raise a sea and swell.

4.53 **Svaneke** (55˚08'N., 15˚09'E.) (World Port Index No. 29080), a small town, stands on the promontory close NW of Sandkasodde. It is fronted by a small harbor, which is protected by two breakwaters and mostly used by fishing vessels. The entrance channel, which leads WNW, has a least depth of 4.4m and is indicated by a lighted range. The harbor consists of two basins. The outer basin has a depth of 4.4m and the inner basin, which is entered through a lock gate, has a depth of 3.5m. There is a commercial quay, 231m long, with a depth of 4.4m alongside. Vessels up to 45m in length, 8.5m beam, and 4m draft can be accommo-dated.

Local knowledge is advised and local pilots are available during the day. The harbor can be contacted by VHF and vessels requesting pilotage must send an ETA 24 hours, 12, hours and 4 hours in advance.

Svaneke Light

The NE coast of Bornholm is rocky and steep-to. The shore is fringed by narrow beaches and backed by high, steep cliffs.

Listed (55˚09'N., 15˚07'E.), a small craft harbor, is situated about 2 miles NW of Sandkasodde and formed by two breakwaters. It consists of four basins which have depths up to 3m. The harbor is sheltered and fronted by several sunken

rocks and reefs. The entrance, which is 10m wide, should by approached from the N, but local knowledge is essential.

Gudhjem (55˚13'N., 14˚58'E.), situated about 8 miles NW of Sandkasodde, consists of two small harbors. They lie close S and close N of Sorteodde, the E extremity of a small protruding peninsula, which is 80m high. The S harbor is mostly used by fishing vessels and consists of three basins with depths of 2.5 to 4m. It can handle small craft of up to 40m in length and 3.8m draft. The fairway is indicated by a lighted range and leads SSW to the entrance which is only 11m wide. A church and a windmill, without sails, stand near this harbor.

The N harbor, known as Norresand Havn, is also mostly used by fishing vessels. It consists of a single basin, with a depth of 3.6m, and should be approached from the NW.

Melsted, a small boat harbor, lies 0.5 mile SSE of the S harbor. Anchorage, with local knowledge, can be obtained, in depths of 9 to 13m, on the bank lying SE of this harbor.

4.54 **Tejn** (55˚15'N., 14˚50'E.)29040, a sheltered harbor, is situated about 4 miles SSE of Hammer Odde. It is formed by a mole and a breakwater. The harbor consists of five basins, with depths of 2.2 to 5m, and is used by fishing vessels and yachts. Local knowledge is advised. The entrance fairway leads SSE and is indicated by a lighted range. Anchorage, with offshore winds, can be taken, in depths of 11 to 13m, about 0.6 mile N of the harbor.

Allinge (55˚17'N., 14˚48'E.) (World Port Index No. 29030), a small harbor, is situated 1.8 miles SSE of Hammer Odde and protected by breakwaters. It consists of two basins, connected by a lock gate, and has depths of up to 4.5m. Small craft of up to 60m in length, 11.5m beam, and 4.3m draft can be accommodated. A church, with a tower, and a windmill stand in the village, but are reported to be only distinguishable from a short distance. The entrance fairway leads W and is indicated by a lighted range. Local knowledge is advised.

Kampelokkehavnen, a small and shallow boat harbor, lies close N of Allinge.

Christianso (Denmark)

4.55 **Christianso** (55˚19'N., 15˚11'E.), a small group of islets, lies 10 miles NE of Bornholm and consists of Christianso, Frederikso, Graesholm, and Tat. The group is surrounded by several rocks, reefs, and shoals and should only be approached by vessels with local knowledge.

The currents setting within the various narrow passages which lead between the islets attain considerable rates during stormy weather. The direction of these currents is governed by that of the wind and current in the Baltic Sea.

Christianso, the largest islet, is 22m high. A main light is shown from a tower, 16m high, surmounting a very conspicuous fort which stands on the W side of this islet.

Frederikso lies close W of Christianso and a light is shown from a prominent white house, 3m high, standing on its E side. A conspicuous tower, with a pointed roof, stands on the N side of this islet.

Graesholm lies close N of Frederikso and is 10m high. Tat lies 0.5 mile NNW of Graesholm and is 6m high. A light is shown from a tower, 2m high, standing on this islet.

Christianso Harbor (55˚19'N., 15˚11'E.) (World Port Index No. 29130) lies within the narrow sound leading between Christianso and Frederikso. It is divided into two parts by a bridge which connects the two islets. The bridge, when open, allows small vessels with drafts of up to 4m to pass through. The harbor affords refuge and shelter from stormy weather, except S gales. However, entry into the harbor is usually restricted to small craft because of its constriction. A local pilot is available and, on request by VHF, will embark close seaward of the entrance fairway.

Christiano Light

Caution.—It is reported (1991) that the area lying within 1 mile of the group has been designated as a bird protection zone. Within this zone, a speed limit of 12 knots applies and vessels should keep at least 100m from the outer islets.

Several small danger areas lie in the vicinity of Christianso and may best be seen on the chart. Anchoring and fishing are prohibited in these areas due to the residual danger from bottom mines.

Table of Contents